

Ash Storage Basin

US EPA RECORDS CENTER REGION 5



01067

4200

200

8400,000

420,000

METROPOLITAN COUNCIL
Suite 300 Metro Square Building, St. Paul, Minnesota 55101
612-291-6359

DATE: September 5, 1985
TO: Metropolitan Waste Management Advisory Committee
FROM: Parks and Environmental Planning Department (John Rafferty 291-6459) *QR*
SUBJECT: Metropolitan Waste Control Commission Incinerator Ash Disposal Site
Metropolitan Council Referral File No. 12967-1
Metropolitan Council District No. 2

INTRODUCTION

The Metropolitan Waste Control Commission (MWCC) has proposed construction and operation of a 198 acre-foot facility that would dispose of the 320,000 cubic yards of sewage sludge incinerator ash that has been produced at the Pig's Eye Sewage Treatment Plant. The proposed facility will be located to the northeast of the sewage plant and north of Pig's Eye Lake on the site of the St. Paul Landfill, which closed in 1971. The ash to be disposed is currently being stored in four basins on the Pig's Eye sewage plant site. These basins are now at capacity.

AUTHORITY FOR REVIEW

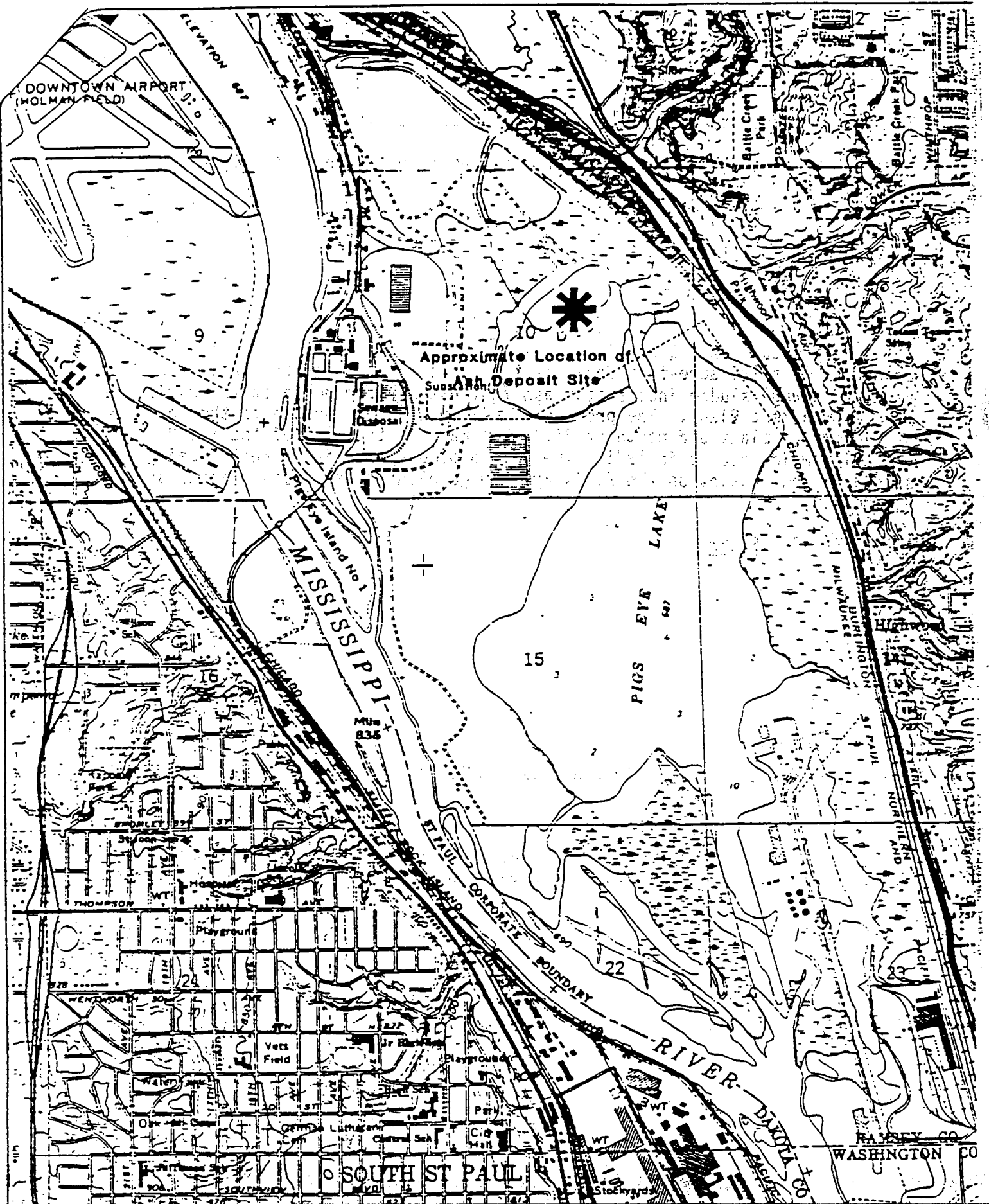
The Metropolitan Council is required by Minn. Stat. 473.823, Subd. 3, to approve proposed solid waste facilities in the Metropolitan Area before the Minnesota Pollution Control Agency (MPCA) can issue permits for such facilities. Council approval must be based on consistency with the solid waste management chapter of the Metropolitan Development Guide. Council approval may contain conditions to assure consistency with the guide chapter.

DESCRIPTION OF THE PROPOSED FACILITY

The proposed facility is a land disposal site for sewage sludge incinerator ash. The majority of the site is currently owned by the city of St. Paul. The MWCC is currently negotiating with the city of St. Paul for the use of the land. The southeastern edge of the proposed facility is owned by the MWCC (see Figure 1). The project area is 31 acres with the final elevation expected to be 20 to 26 feet above current site elevation. The site will be bermed during construction and filling to prevent erosion. Sludge ash will be transported approximately one-half mile by dump truck from the the ash storage basins to the disposal area.

The site currently has five monitoring wells. The monitoring wells will be preserved and extended as construction proceeds. The estimated total cost of the proposed project is \$2,100,000.

Figure 1



adada
language

Upon completion, the facility's end use would be development as part of a regional park. The site will be closed by the addition of 1.5 feet of soil and planted to prevent erosion. The MWCC will construct a parking lot to the south of the hilltop (see Figure 2). The roadway will be compacted to prevent erosion. The site will be planted with approximately one acre of trees in the vicinity of the parking lot.

420,000 yd³

SUMMARY OF PREVIOUS REFERRALS AND EXPECTATION FOR RELATED SUBMISSIONS

The permit review included herein is one step in the process involving the Council with this project. Related planning and review activities are listed below:

- o January 1985, Metropolitan Council designated responsible governmental unit for the environmental assessment worksheet (EAW).
- o May 1985, EAW prepared for the landfill expansion.
- o August 1985, a negative declaration was made for the need of preparing an environmental impact statement.
- o Future MWCC capital budget amendments.

NOTIFICATION AND RESPONSE

The following agencies and officials were notified that the Council has received this permit application for review:

- o City of St. Paul
- o Ramsey County
- o Ramsey County Soil and Water Conservation District
- o Ramsey-Washington Metropolitan Watershed District
- o Metropolitan Airports Commission

PROJECT REVIEW

The review for the proposed ash disposal site must be predicated on the policies and criteria as described in the Metropolitan Development Guide. The project has elements that must be evaluated on the basis of Waste Management Service Impacts, Capacity, Location, Environmental Impacts, Operations, and Economics Impacts. The above mentioned criteria will be discussed in the following review.

Waste Management Service Impacts (Criteria 1)

The proposed ash disposal facility will be constructed to dispose of 198 acre-feet of incinerator ash from the MWCC's Pig's Eye Sewage Treatment Plant. The disposal of the ash in a facility operated by the MWCC will not negatively affect the development of other facilities to process waste materials. The material to be disposed will consist entirely of processed wastes. The material has been evaluated for alternate uses (that is, asphalt paving and lightweight aggregate), but no commercially viable options are currently known in the Metropolitan Area for disposal of the incinerator ash.

The proposed project is designed to handle ash currently stored on the MWCC plant site. The basins currently used to store the ash are very near capacity and the disposal site proposed will be filled by the ash in the basins. The facility will offer a period of time in which the MWCC may site and construct a landfill for the ash or develop alternate technologies for use of the ash while the basins are once again being filled (approximately seven years).



Capacity (Criteria 2)

There are existing facilities in the region for the disposal of incinerator ash. Harry Grounds, process engineer, MWCC, stated that two landfills contacted by the MWCC have informed them they would be able to dispose of the material. The MWCC would need to obtain a co-disposal permit from the MPCA prior to disposal of the ash on a sanitary landfill. The cost of disposal is considered by MWCC to be a limiting condition. The cost of the facility and alternate disposal will be discussed under Economic Effects below.

The incinerator ash is not considered mixed municipal waste. The ash is classified as a special waste under MPCA rules. The landfill capacity documented in the plan is for mixed municipal waste or residuals from the processing of mixed municipal waste. The proposed facility is for waste exempted from processing and the landfill development schedule. The incinerator ash may be considered similar to demolition fill material according to plan criteria. The construction of the ash disposal site is not in opposition to plan criteria.

Location (Criteria 4)

The proposed facility is a new facility located on the site of a closed landfill. The surrounding land uses are a sewage plant, a rail yard and an undeveloped regional park. The proposed facility will not interfere with the development of any planned land use in the area. The completion of the project will make the site more amenable to the construction of the park facilities as planned. The completed project will provide for better closure of the existing facility. The project will improve the soil and leachate characteristics of the site, and trees and grasses will be planted, improving the appearance of the site.

The site is partially located on a 100-year floodplain. The majority of the site is classified as flood fringe and is considered acceptable for limited development. Measures will be taken to protect that portion of the land disposal facility that will be located in the floodplain.

In summary, the location of the ash disposal facility will not conflict with the existing land uses, and the completion of the facility will improve the land for future use as a regional park.

Environmental Impacts (Criteria 5)

The proposed facility site was operated as a landfill prior to 1971. Landfills operated prior to 1971 were allowed to receive toxic industrial wastes. The potential exists for leachate from the facility to contain toxic organics. In discussions staff has had with the MWCC and MPCA, it was learned that no monitoring for toxic organics in the leachate has been conducted. Council staff recommended that the MWCC perform volatile organic analysis at the proposed site. The MWCC staff has written the Council stating that toxic organic analysis of the sludge ash would be conducted.

The city of St. Paul and contributors to the existing disposal site would be responsible for existing conditions on the site. The development of a facility by the MWCC on site may increase the MWCC's liability for future environmental actions according to MPCA staff.

The landfill is currently generating leachate that flows into Pig's Eye Lake and from that point into the Mississippi River. The leachate at the existing site has high levels of phosphate and nitrate. The leachate in one of the wells on the site does not meet drinking water standards for lead. The effect of the leachate on Pig's Eye Lake cannot be determined due to contamination emanating from Battle Creek. The water quality of Pig's Eye Lake is poor due primarily to the effects of Battle Creek.

The proposed site is located in the discharge zone of the Prairie du Chien and Jordan aquifers. The probability of contamination reaching the underlying aquifers is very small.

The facility will provide for groundwater monitoring of the area for the potential effects of the facility on leachate quality. From tests conducted by the MWCC and University of Minnesota, it has been shown that the leachate generated from sewage sludge incinerator ash meets drinking water standards for most constituents and is slightly above drinking water standards for barium, chromium and selenium. The addition of the ash on the existing fill should not notably degrade leachate quality. The construction of the facility will provide better final cover than is currently at the site. The one foot of 10 to the minus six centimeters/second soil with the one-half foot of top soil will provide much better infiltration protection for the existing facility. The improved closure will not significantly alter the generation of leachate from the existing fill area. The EAW states that the majority of leachate is generated due to groundwater contact with the refuse rather than rainwater penetration of the fill. The development guide states that "existing facilities which are polluting the groundwater should be corrected or eliminated."

The construction of the proposed facility will improve the site and will allow for monitoring of the existing site. The detection of toxic organics in monitoring the facility will require the responsible parties to take corrective action. The corrective measures will provide for the action required in the plan.

Operations (Criteria 6)

The MWCC has maintained good operations at the facilities they control. The MWCC has experience with the operation of sludge and sludge ash facilities. There is no concern on the part of Council staff that the proposed facility will not be operated in an environmentally sound manner.

The operations criteria address the disposal of illegal materials in land disposal facilities. The proposed project will not be subject to this problem because the facility will only serve the MWCC and contain only incinerator ash.

Economic Effects (Criteria 8)

The cost for disposal of sewage sludge incinerator ash in the proposed facility would be approximately \$9 per cubic yard. The cost includes construction and operation of the facility, and transportation of the waste. The costs quoted for alternate disposal were \$9 to \$17 per cubic yard without transportation. The total cost with transportation would be \$10 to \$20 more expensive per cubic yard than the proposed facility. The cost of alternate disposal would be two to three times as expensive as the proposed facility. The plan states that the cost of a disposal option should not greatly exceed other options. At present, the MWCC views alternatives to be unacceptable due to economic considerations.

CONCLUSIONS

The following are the staff conclusions concerning the proposed MWCC sewage sludge ash disposal site.

1. The facility is not a sanitary landfill and will not be subject to toxic organic or methane gas releases. It is believed that the leachate from the ash will meet MPCA leachate limits for heavy metal contamination.
2. The facility is located in an area that has a high probability of ground-water and surface water contamination from a previous St. Paul landfill on the site. The development of the facility will provide better closure of a portion of the existing St. Paul Landfill site.
3. The MWCC must dispose of all or a portion of the ash at the Pig's Eye Sewage Treatment Plant to continue operation of the sludge incinerators.
4. Based on available information, the alternatives to the land disposal site are twice as expensive as the proposed facility.
5. The development of the proposed facility by the MWCC will provide the opportunity for long-term monitoring of toxic organic releases from the landfill and, if necessary, remedial action to correct the environmental problem.

RECOMMENDATION

That the Metropolitan Council approve the issuance of a Minnesota Pollution Control Agency permit for the Metropolitan Waste Control Commission sludge ash disposal facility subject to the following conditions:

1. That the Metropolitan Waste Control Commission assess the feasibility of alternatives prior to or in conjunction with the capital budget amendment to the Metropolitan Council.
2. That the Metropolitan Waste Control Commission sample the leachate from the existing site of the facility for toxic organics prior to a decision to implement the facility and during operation.

↓
+ heavy metals

JR015A-PHENV2
09.05.85

UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

Case Number	77 B 8999	Date	November 12, 1985
Name of Assigned Judge	MARSHALL	Sitting Judge if Other Than Assigned Judge	
Case Title	IN THE MATTER OF CHICAGO, MILWAUKEE, ST. PAUL and PACIFIC RAILROAD COMPANY, Debtor.		

MOTION: (In the following box (a) indicate the party filing the motion. e.g., plaintiff, defendant, 3d-party plaintiff, and (b) state briefly the nature of the motion being presented.)

DOCKET ENTRY: (The balance of this form is reserved for notations by court staff.)

(1) <input type="checkbox"/>	Judgment is entered as follows:	(2) <input checked="" type="checkbox"/>	[Other docket entry:]					
ENTER ORDER NO. 866: FINAL DECREE								
(3) <input type="checkbox"/>	Filed motion of (use listing in "MOTION" box above)							
(4) <input type="checkbox"/>	Brief in support of motion due _____							
(5) <input type="checkbox"/>	Answer brief to motion due _____ Reply to answer brief due _____							
(6) <input type="checkbox"/>	<input type="checkbox"/> Hearing on _____ set for _____ at _____							
(6) <input type="checkbox"/>	<input type="checkbox"/> Ruling _____							
(7) <input type="checkbox"/>	Status hearing <input type="checkbox"/> held <input type="checkbox"/> continued to <input type="checkbox"/> set for <input type="checkbox"/> re-set for _____ at _____							
(8) <input type="checkbox"/>	Pretrial conference <input type="checkbox"/> held <input type="checkbox"/> continued to <input type="checkbox"/> set for <input type="checkbox"/> re-set for _____ at _____							
(9) <input type="checkbox"/>	Trial <input type="checkbox"/> set for <input type="checkbox"/> re-set for _____ at _____							
(10) <input type="checkbox"/>	<input type="checkbox"/> Trial <input type="checkbox"/> Hearing held and continued to _____ at _____							
(11) <input type="checkbox"/>	This case is dismissed <input type="checkbox"/> without <input type="checkbox"/> with prejudice and without costs <input type="checkbox"/> by agreement <input type="checkbox"/> pursuant to _____							
(11) <input type="checkbox"/>	<input type="checkbox"/> FRCP 4(j) (failure to serve) <input type="checkbox"/> General Rule 21 (want of prosecution) <input type="checkbox"/> FRCP 41(a)(1) <input type="checkbox"/> FRCP 41(a)(2)							
(12) <input checked="" type="checkbox"/>	DRAFT (For further detail see order <input type="checkbox"/> on the reverse of <input checked="" type="checkbox"/> attached to the original minute order form)							
<input type="checkbox"/>	No notices required	<table border="1"> <tr><td>number of notices</td></tr> <tr><td>date typed envelopes</td></tr> <tr><td>date docketed</td></tr> <tr><td>date mid notices</td></tr> <tr><td>initialing dpty initials</td></tr> </table>	number of notices	date typed envelopes	date docketed	date mid notices	initialing dpty initials	Document #
number of notices								
date typed envelopes								
date docketed								
date mid notices								
initialing dpty initials								
<input type="checkbox"/>	Notices mailed by judge's staff							
<input type="checkbox"/>	Notified counsel by telephone							
<input checked="" type="checkbox"/>	Docketing to mail notices							
<input type="checkbox"/>	Mail CIV-31 form							
<table border="1"> <tr> <td>rld</td> <td>courtroom deputy's initials</td> </tr> </table>		rld	courtroom deputy's initials	<table border="1"> <tr> <td colspan="2">Date time received in Central Clerk's Office</td> </tr> </table>		Date time received in Central Clerk's Office		
rld	courtroom deputy's initials							
Date time received in Central Clerk's Office								

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN THE MATTER OF)	In Proceedings for the
)	Reorganization of a
CHICAGO, MILWAUKEE, ST. PAUL)	Railroad
and PACIFIC RAILROAD COMPANY)	
)	No. 77 B 8999
Debtor.)	Prentice H. Marshall, Judge

ORDER NO. 866

FINAL DECREE

Upon consideration of the Trustee's Motion for Entry of a Final Decree, filed pursuant to the Trustee's Modified 1985 Plan of Reorganization (the "Plan"), due notice having been given to creditors, stockholders and other parties in interest, the Court, acting as a Court of Reorganization for the Debtor pursuant to Section 77 of the Bankruptcy Act of 1898, as amended ("Section 77"), finds and concludes as follows:

1. The Chicago, Milwaukee, St. Paul and Pacific Railroad Company, the Debtor in this proceeding, a Wisconsin corporation, filed on December 19, 1977 its petition to this Court to effect a plan of reorganization under Section 77. A copy of that petition was filed at the same time with the Interstate Commerce Commission (the "Commission"). This Court has jurisdiction over the proceedings pursuant to Section 77.

2. The Court approved the petition as properly filed on December 20, 1977. Stanley E.G. Hillman was appointed trustee of the property of the Debtor on February 13, 1978. Mr. Hillman was succeeded as Trustee by Richard B. Ogilvie on August 29, 1979. Mr. Hillman from the date of his appointment until August 20, 1979, and Mr. Ogilvie from that date until the present time, have continued in the possession and control of the property and assets of the Debtor and their operation.

3. On March 31, 1983, the Trustee filed with the Court an Amended Plan of Reorganization for the Debtor, which was referred to the Commission by order of this Court. After due notice and hearings, the Commission, in orders served September 26, 1984, and January 11, 1985, approved a modified version of the Trustee's plan.

4. On February 19, 1985, this Court, in Order No. 809, approved the sale of the Debtor's operating rail assets to the Soo Line Railroad Company and its affiliate The Milwaukee Road, Inc., formerly SLRCO, Inc. (collectively "Soo") pursuant to the terms of an Asset Purchase Agreement ("APA") between the Trustee and Soo.

5. On April 10, 1985, the Commission, upon petition of the Trustee, issued a decision in which it ruled that further modifications to the Trustee's Amended Plan need not be considered by the Commission.

6. On May 1, 1985, the Trustee filed with this Court his 1985 Plan of Reorganization for the Debtor (the "Plan"). The Plan recognized the sale of the operating assets to Soo but otherwise incorporated the essential provisions of the plan approved by the Commission. After due notice to creditors, stockholders and other parties in interest was given in accordance with Order No. 811, this Court held hearings, received evidence, and heard the arguments of counsel on June 24, 25 and 27, 1985 and on July 12, 1985 for the purpose of considering approval and confirmation of the Plan.

7. On July 12, 1985, this Court entered its Order No. 832 modifying the Plan in certain respects and confirming and approving the Plan as modified.

8. The Plan authorizes and directs the Trustee to proceed with the consummation of the Plan, but provides for the retention of jurisdiction by this Court with respect to the consummation of the Plan, including the entry of a final decree pursuant to Section 77(f) discharging the Trustee and closing the case, except as provided below.

9. The Trustee has substantially completed the consummation of the Plan and it is now appropriate for this Court to enter a Final Decree with respect to certain matters involved in the consummation of the Plan and on the discharge of the Trustee.

NOW, THEREFORE, IT IS ORDERED, ADJUDGED AND
DECREED AS FOLLOWS:

1. The "Consummation Date" for purposes of the Plan shall be November 25, 1985.

2. The APA and the Plan require the amendment of the Debtor's articles of incorporation to change its corporate name. The form of amendment to the Debtor's articles of incorporation attached as Exhibit A is approved in all respects. The Trustee is authorized and directed to file that amendment with the appropriate officials in order to effect the change of the Debtor's name. The filing officer in the State of Wisconsin is directed to accept the amendment and to issue the appropriate certificate reflecting the change of the Debtor's name.

3. The following people, who have been recommended by the Trustee as provided in the Plan, are appointed to serve as directors of the Reorganized Company until the first meeting of shareholders of the Reorganized Company:

Jack Nash	Clarence G. Frame
Ezra H. Zilkha	Robert C. Reed
Peter Sharp	Edwin Jacobson
Leon Levy	Daniel R. Murray

Jerold S. Solovy

4. a. The Trustee has recommended and the Court approves the deposit at Consummation Date a total of \$225,000,000 million (less the amount paid with respect to Allowable Claims prior to the Consummation Date) in the Segregated Account established by the Plan, and in the Appeal Escrow Account described in paragraph 4b below, with \$129,200,898.58 in the Segregated Account and \$95,799,101.42 in the Escrow Appeal Account. Five days before the approved Consummation Date the Trustee shall file with this Court and serve on the parties a report showing the amount of Allowable Claims paid prior to Consummation Date and the resulting amount required to be deposited in the Segregated Account. The Segregated Account, but not the Appeal Escrow Account provided for in paragraph 4b, shall be held pursuant to the form of Escrow Agreement attached as Exhibit B. The Escrow Agent shall be the Continental Illinois National Bank and Trust Company of Chicago or such other bank as may be designated from time to time by this Court. The Escrow Agent is instructed to pay money out of the Segregated Account only as provided in the Plan, this Order, or further orders of this Court, and to invest the Segregated Account as provided in paragraph 5.

The Reorganized Company is directed to pay Allowable Claims from the Segregated Account (or from other moneys if no money remains in the Segregated Account), as provided in Section 5.2 of the Plan, except for Class B Claims, which

are provided for in paragraph 4b. The Reorganized Company is also directed to pay the reasonable fees of the Escrow Agent for its services with respect to the custody of the Segregated Account.

b. In addition to the Segregated Account provided for in paragraph 4a, there is also established, pursuant to Order 858A, the Appeal Escrow Account of \$95,799,101.42 (established 10/16/85), as security for the Class B Claims until disposition of CMC's appeal and the Committee's cross-appeal from Orders 831 and 832. The Appeal Escrow Account shall be held separate and apart from the Segregated Account and shall be subject only to the terms of Order 858A.

5. Amounts in the Segregated Account shall be invested in (i) direct obligations of the United States or obligations of agencies of the United States or obligations which are backed by the full faith and credit of the United States, (ii) certificates of deposit or similar debt obligations of banking institutions, such as bankers' acceptances or repurchase agreements, of commercial banks insured by the Federal Deposit Insurance Corporation, (iii) direct and general obligations of any state which are rated in either of the two highest full rating categories by at least one nationally recognized rating agency, (iv) commercial paper rated not lower than P-1 or P-2 by Moody's Investors Service, Inc., or not lower than A-1 or A-2 by Standard and Poor's

Corporation, or (v) money market funds with fixed principal values and which invest only in instruments with credit ratings equivalent to those specified above. Investments shall be made at the direction of the Reorganized Company. Investment earnings on amounts in the Segregated Account may be paid out to the Reorganized Company as realized.

6. On the Consummation Date all right, title and interest of the Trustee in the property of the Estate shall vest in and become the absolute property of the Reorganized Company, notwithstanding the laws of any state or the decision or order of any state authority to the contrary. Except as otherwise provided in this Order or in the Plan, the Reorganized Company shall take the property free and clear of all claims, rights, demands, interests, liens and encumbrances of every kind and character. The Trustee is authorized and directed to execute and deliver to the Reorganized Company a deed and bill of sale transferring all of the property of the Estate. The form of those instruments shall be determined by the Trustee. All property and funds of the Estate held by persons other than the Trustee shall be delivered or paid over to the Reorganized Company, except (i) the Segregated Account and (ii) escrow accounts pertaining to Tax Benefit Transfer Leases which run in favor of the lessor.

7. Except as provided in this Order or in the Plan, the Debtor, the Trustee in his representative capacity and the Reorganized Company shall be, as of the Consummation Date, released forever from: (i) all obligations, debts, liabilities, claims and causes of action against the Debtor, whether or not filed or presented, whether or not approved, acknowledged or allowed in these proceedings and whether or not provable in bankruptcy, including without limitation all claims assumed or guaranteed by the Debtor or the Trustee or enforceable against the property of the Debtor; (ii) all obligations, debts, liabilities and claims arising from costs and expenses of administration, whether or not filed or presented and whether or not approved, acknowledged or allowed in these proceedings, including without limitation all taxes, assessments, claims and other charges of governmental units or agencies, whenever assessed, accruing prior to the Consummation Date; and (iii) all obligations, debts, liabilities and claims with respect to all bonds, coupons, debentures, notes, certificates, evidences of indebtedness, shares of stock, securities and leases (including interest accrued and dividends declared), without limitation as to their nature and whether made, assumed or guaranteed by the Debtor or the Trustee or enforceable against any of them or the property of any of them.

8. Notwithstanding paragraph 7 above, the Reorganized Company shall be liable and responsible for the payment of Allowable Claims after the Consummation Date as provided in Section 5.2 of the Plan, for those Allowable Claims described in Section 5.6 of the Plan, for its obligations under contracts assumed by the Trustee pursuant to Section 6.1 of the Plan and for obligations of the Trustee arising during the administration of the Estate to the extent that the Trustee is bound by those obligations (including, without limitation, the Trustee's obligations under the APA and Order 809), provided, however, that the Reorganized Company shall not be liable and responsible for claims against the Trustee in his individual capacity and, with respect to such claims, shall not indemnify the Trustee as provided hereinafter. The Reorganized Company shall indemnify the Trustee, his agents, attorneys and employees against any and all expenses (including attorney's fees), costs, fees, liabilities and fines arising out of the matters for which the Reorganized Company shall be liable as set forth in this Paragraph 8 or which pertain to or arise out of the administration of the Estate or the conduct of the reorganization proceedings, except where this Court determines that indemnification is inappropriate.

9. The Court reserves jurisdiction, which shall be exclusive to the extent that under applicable law the Court's jurisdiction is now exclusive:

(a) To consider and act with respect to any Claim against the Debtor or the Trustee included in a class provided for under the Plan or with respect to any contingent claim (which shall not include claims against the Trustee in his individual capacity), asserted but not finally settled or adjudicated prior to the Consummation Date;

(b) To consider and act on any matter over which the Court now has jurisdiction and which has not been adjudicated, discharged or resolved prior to the Consummation Date (including questions and controversies arising under or with respect to the APA and Order 809);

(c) To consider and act on any application for instructions with respect to the Segregated Account, including the distribution of funds from, and any claim upon, the Segregated Account;

(d) To consider and act with respect to the allowance of fees to the Trustee, his staff and counsel, and other parties pursuant to Section 9.1 of the Plan; and

(e) To consider and act upon any other matter as to which the Plan reserves jurisdiction in this Court.

10. The Reorganized Company is authorized and directed to file or record, in each of the jurisdictions in

which it owns real property, a copy of this Order and the deed transferring the property of the Estate to the Reorganized Company. The recording officer in each such jurisdiction shall accept those documents for recording. No tax (including stamp, conveyance, transfer and similar taxes) or other fee shall be imposed with respect to the conveyance of the property of the Estate to the Reorganized Company, except for ordinary and customary fees for the recordation of documents.

11. The APA provides that if all inaccuracies in deeds and other instruments of conveyance from the Trustee to the Soo have not been corrected prior to the consummation of the Plan, the Plan will contain provisions for continued correction of the deeds and other instruments of conveyance. Pursuant to the agreement of the parties to the APA, this Order, rather than the Plan, sets forth provisions for the continued correction of deeds and other instruments of conveyance. The APA also provides for certain adjustments to the purchase price for the Railroad. Soo has claimed that it is entitled to such an adjustment.

The Trustee and the Soo are authorized and directed to continue to negotiate in good faith, prior to the Consummation Date, the settlement of disputes relating to the correction of deeds and other instruments of conveyance and the adjustment of the purchase price under the APA.

If, by the Consummation Date, the Trustee and the Soo have not resolved those disputes, the Reorganized Company and the Soo shall, for 90 days following the Consummation Date, negotiate in good faith to settle the disputes. During the 90 day period, neither the Reorganized Company nor the Soo shall sell, mortgage or encumber real property which immediately prior to the closing of the APA on February 19, 1985 was owned or operated by the Trustee and located within those states in which the Trustee conducted rail operations, without giving prior written notice to the other more than 15 days prior to the proposed action. In the event of disagreement over a proposed action, either party may apply to this Court for appropriate relief. If no settlement of these matters has been completed by the end of that 90 day period, this Court shall hear and resolve the remaining disputes, and retains jurisdiction for that purpose.

12. Except as provided in this Order or the Plan, as of the Consummation Date, the Trustee shall be discharged and shall be relieved of any further duties and responsibilities in respect of the administration of the property or the conduct of the business of the Debtor. The Trustee is forever discharged and released from any liability for any claim in his representative capacity which is barred pursuant to the Plan. His bond shall be released when all claims against him in his individual capacity are finally resolved and satisfied.

13. All persons, firms, corporations and other entities, including without limitation the United States and state and local governmental bodies and agencies ("Entities"), are by this Order perpetually restrained and enjoined from instituting, prosecuting, or pursuing, or attempting to institute, prosecute, or pursue, any suit, action or proceeding ("Action") against the Reorganized Company (or its successors and assigns), or against any of the assets or property of the Reorganized Company (or of its successors and assigns), directly or indirectly, by reason of or on account of any obligation or obligations incurred by the Debtor or by the Trustee, except the obligations imposed upon or required to be assumed by the Reorganized Company by the Plan (including those claims filed pursuant to Section 11.1 of the Plan which are ultimately determined to be Allowable Claims) or this Order. The Actions restrained and enjoined by this Order include, without limitation, those based upon or on account of any right, claim, judgment or interest of any kind or nature in, to, or against the Debtor or any of its assets or properties, or which interfere with, attach, garnish, levy upon, enforce liens against or upon, or in any manner disturb any portion of the property (real or personal) now or in the future belonging to or being in the possession of the Reorganized Company (or its successors and assigns), or which interfere with or take steps to interfere with the

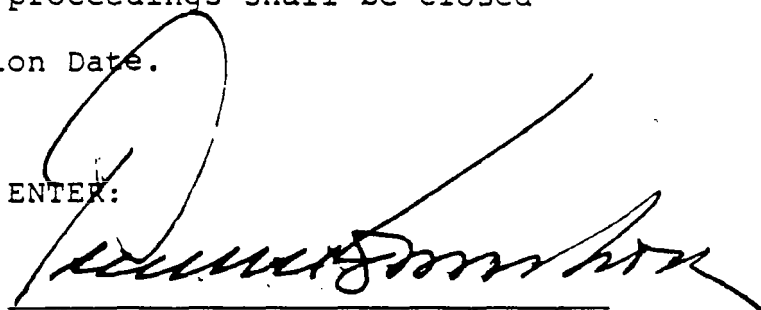
Reorganized Company, its officers, agents and employees, or the conduct of its business.

All Entities are also by this Order restrained and enjoined from prosecuting against the Trustee in his representative capacity or against the Reorganized Company any Action arising out of or based on any act done or omitted to be done in consummating and carrying out the Plan or any order of this Court entered in these proceedings. Notwithstanding any of the foregoing, nothing in this Order shall preclude the further prosecution of any appeal previously noticed and pending as of this date.

14. Except as provided in this Order, all jurisdiction of this Court in or by reason of these proceedings shall be terminated and these proceedings shall be closed effective as of the Consummation Date.

Dated: November 12, 1985

ENTER:


District Judge


CONSENT TO CORPORATE ACTION
ON BEHALF OF SHAREHOLDERS OF
CHICAGO, MILWAUKEE, ST. PAUL AND
PACIFIC RAILROAD COMPANY

The undersigned being the Trustee of the Chicago, Milwaukee, St. Paul and Pacific Railroad Company, a Wisconsin corporation, does hereby, on behalf of the shareholders of the corporation otherwise entitled to vote thereon, and by order of the United States District Court for the Northern District of Illinois, adopt the following resolution as and for a resolution of the shareholders of the corporation as of the date hereof:

RESOLVED, that the articles of incorporation of Chicago, Milwaukee, St. Paul and Pacific Railroad Company shall be amended to change the name of the corporation to CMC Real Estate Corporation.

Dated:

1985



Richard B. Ogilvie, Trustee of
the Chicago, Milwaukee, St. Paul
and Pacific Railroad Company

On Behalf of all Shareholders of
Chicago, Milwaukee, St. Paul and
Pacific Railroad Company

Escrow No. _____

ESCROW AGREEMENT

To: Continental Illinois National Bank and Trust
Company of Chicago
Trust and Investment Services
Corporate Trust Division, Escrow Section
30 North LaSalle Street - 10th Floor
Chicago, Illinois 60693

The following property is deposited with you by the Trustee ("Trustee") of the Chicago, Milwaukee, St. Paul & Pacific Railroad Company ("Milwaukee Road"), Debtor pursuant to Court Order No. _____

- A. The sum of _____.
- B. Copy of Court Order No. _____
("Final Decree")
- C. Copy of the Trustee's Modified 1985 Plan of Reorganization. ("Plan")

As Escrowee, you are hereby directed to hold, deal with and dispose of the aforesaid property and any other property at any time held by you hereunder in the following manner, subject however, to the terms and conditions hereinafter set forth:

1. You are instructed to invest all monies in this escrow account in only the following instruments with maturities of not more than two years from the date of investment:

- (i) direct obligations of the United States or obligations of agencies of the United States or obligations which are backed by the full faith and credit of the United States;
- (ii) certificates of deposit or similar debt obligations of banking institutions (including the Escrowee), such as bankers' acceptances or repurchase agreements, of commercial banks insured by the Federal Deposit Insurance Corporation;
- (iii) direct and general obligations of any state which are rated in either of the two highest full rating categories by at least one nationally recognized rating agency;

(iv) commercial paper rated not lower than P-1 or P-2 by Moody's Investors Service, Inc., or not lower than A-1 or A-2 by Standard and Poor's Corporation, or

(v) money market funds with fixed principal values and which invest only in instruments with credit ratings equivalent to those specified above.

Any book entry securities in which the escrowed monies are invested pursuant to this Escrow Agreement shall be held in the Escrowee's custody account with the Federal Reserve Bank of Chicago and maintained separately on the books and records of the Escrowee in the name of the Reorganized Company (as defined in the Plan).

Any certificated securities, certificates of deposit or other certificated items in which the escrowed monies are invested shall be issued as registered in the name of the Escrowee's nominee, and maintained separately on the books and records of the Escrowee in the name of the Reorganized Company.

2. The specific instruments to invest in shall be designated from time to time by the Reorganized Company. All undersigned parties shall receive a copy of the monthly activity statement for the escrow account.

3. Interest shall be accrued and reinvested pursuant to Paragraph 1 above, or may be paid out as realized at the direction of the Reorganized Company.

4. The escrow shall be paid out pursuant to written directions of the Reorganized Company (as defined in the Plan) in accordance with the Plan, the Final Decree and subsequent Reorganization Court orders, including payments directly to the Reorganized Company for reimbursement of payments of Allowable Claims (as defined in the Plan) made by the Reorganized Company.

5. The reasonable expenses and fees, incurred in connection with the escrow account shall be paid by the Reorganized Company.

TERMS AND CONDITIONS

1. Your duties and responsibilities shall be limited to those expressly set forth in these escrow instructions, and you shall not be subject to, nor obliged to

recognize, any other agreement between, or direction or instruction of, any or all of the parties hereto provided, however, these escrow instructions may be amended at any time or times by order of the Reorganization Court.

2. You are authorized, in your sole discretion, to disregard any and all notices or instructions given by any of the undersigned or by any other person, firm or corporation, except only such notices or instructions as are hereinabove provided for or given pursuant to Reorganization Court orders.

3. You shall not be personally liable for any act taken or omitted hereunder if taken or omitted by you in good faith and in the exercise of your own best judgment. You shall also be fully protected in relying upon any written notice, demand, certificate or document which you in good faith believe to be genuine.

4. You shall not be required or have a duty to notify anyone of any payment or maturity under the terms of any instrument deposited hereunder, nor to take any legal action to enforce payment of any check, note or security deposited hereunder. You shall have no liability to pay interest on any money deposited or received hereunder.

5. You shall not be responsible for the sufficiency or accuracy of the form, execution, validity or genuineness of documents or securities now or hereafter deposited hereunder, or of any endorsement thereon, or for any lack of endorsement thereon, or for any description therein, nor shall you be responsible or liable in any respect on account of the identity, authority or rights of the persons executing or delivering or purporting to execute or deliver any such document, security or endorsement or these escrow instructions.

6. Any notices which you are required or desire to give hereunder to any of the undersigned shall be in writing and may be given by mailing the same to the address indicated below opposite the signature of such undersigned (or to such other address as said undersigned may have theretofore substituted therefor by written notification to you), by United States mail, postage prepaid. For all purposes hereof any notice so mailed shall be as effectual as though served upon the person of the undersigned to whom it was mailed at the time it is deposited in the United States mail by you whether or not such undersigned thereafter actually receives such notice. Notices to you shall be in writing and shall not be deemed to be given until actually received by your trust department employee or

officer who administers this escrow. Whenever under the terms hereof the time for giving a notice or performing an act falls upon a Saturday, Sunday, or holiday, such time shall be extended to the next business day.

7. If you believe it to be reasonably necessary to consult with counsel concerning any of your duties in connection with this escrow, or in case you become involved in litigation on account of being escrowee hereunder or on account of having received property subject hereto, then in either case, your costs, expenses, and reasonable attorney's fees shall be paid by the Reorganized Company.

8. It is understood that you reserve the right to resign as Escrowee at any time by giving written notice of your resignation, specifying the effective date thereof, to the undersigned. Within 30 days after receiving the aforesaid notice, the undersigned agree to appoint a successor Escrowee to which you may upon Reorganization Court approval distribute the property then held hereunder, less your fees, costs and expenses. If a successor Escrowee has not been appointed and has not accepted such appointment by the end of the 30-day period, you may apply to the Reorganization Court for the appointment of a successor Escrowee, and the costs, expenses and reasonable attorneys' fees which you incur in connection with such a proceeding shall be paid by the Reorganized Company.

9. This escrow agreement shall be construed, enforced, and administered in accordance with the laws of the State of Illinois.

10. The undersigned Escrowee hereby acknowledges receipt of the property described in the above Escrow Agreement and agrees to hold, deal with and dispose of said property and other property at any time held by it hereunder in accordance with the foregoing Escrow Agreement.

11. Executed this 31st day of October, 1985, at Chicago, Illinois.

Parties to Escrow

Richard B. Ogilvie, Trustee of the
Chicago, Milwaukee, St. Paul
and Pacific Railroad (Debtor)

Addresses

547 W. Jackson Avenue
Suite 1510
Chicago, Illinois 60606

Continental Illinois National Bank
and Trust Company of Chicago,
Escrowee

By _____

Executed in ____ copies.

SCHEDULE I

1. Acceptance Fee - \$5,000.00
2. Annual Fee - \$5,000.00 per year payable in arrears on November 1, 1986 and each subsequent November 1 during the term of escrow.
3. Transaction Fees and Out-of-Pocket Charges - in accordance with the printed schedule of fees attached to this Schedule I, as that schedule may be modified by the escrowee during the term of this escrow consistent with the escrowee's published fees.

MATTER OF CHICAGO, MILWAUKEE, ST. PAUL & PAC. R. CO. 831

Cite as 784 F.2d 831 (7th Cir. 1986)

in this appeal and the brief that she filed. Lewis, since she is not represented by counsel, must take full responsibility for her appeal. See *Herrera-Venegas*, 681 F.2d at 42. As such, Lewis is required to sign the notice of appeal. While under similar circumstances other courts have dismissed the appeals of *pro se* appellants who failed to sign the notice of appeal, see, e.g., *Therault v. Silber*, 579 F.2d 302, 302 n. 1 (5th Cir.1978); *Scarrella v. Midwest Savings and Loan*, 536 F.2d 1207, 1209 (8th Cir.), cert. denied, 429 U.S. 885, 97 S.Ct. 237, 50 L.Ed.2d 166 (1976); *McKinney v. DeBord*, 507 F.2d 501, 503 (9th Cir.1974); cf. *Covington v. Allsbrook*, 636 F.2d 63, 64 n. 2 (4th Cir.1980), cert. denied, 451 U.S. 914, 101 S.Ct. 1990, 68 L.Ed.2d 305 (1981), we believe that the better procedure is to allow Lewis an opportunity to remedy the omission and to file a brief in her own right. See *K.M.A., Inc. v. General Motors Acceptance Corp.*, 652 F.2d 398, 399 (5th Cir.1981) (it is unclear whether the failure of an attorney to file a corporation's notice of appeal deprives an appellate court of jurisdiction).

Accordingly, this appeal shall be dismissed unless within 30 days from the date of this opinion either Lewis or an attorney on her behalf signs the notice of appeal. Lewis' brief will be due 21 days after she signs the notice. If defendant wishes to respond, its brief will be due 21 days after the filing of Lewis' brief. The Clerk of the Court of Appeals is directed to transmit a copy of this opinion to the cognizant officials in the offices of the Illinois Attorney General and Cook County State's Attorney for the enforcement of state statutes dealing with the unauthorized practice of law.

IT IS SO ORDERED.



In the Matter of CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD COMPANY, Debtor.

APPEAL OF SOO LINE RAILROAD COMPANY and the Milwaukee Road, Inc., Appellants,

Escanaba & Lake Superior Railroad Company, Appellee.

No. 85-1785.

United States Court of Appeals,
Seventh Circuit.

Argued Feb. 14, 1986.

Decided Feb. 27, 1986.

Rehearing and Rehearing En Banc
Denied March 25, 1986.

Railroad, which held right of first refusal for connecting line used in conjunction with certain trackage rights, initiated arbitration of trackage rights agreement, which it had with selling railroad, asking that connecting line be carved out of rights to be transferred to purchasing railroad. The United States District Court for the Northern District of Illinois, Eastern Division, Thomas R. McMillen, J., granted plaintiff's motion to substitute purchasing railroad for selling railroad as its adversary in the arbitration. Purchasing railroad appealed. The Court of Appeals, Easterbrook, Circuit Judge, held that: (1) substitution was appealable as order in reorganization under Bankruptcy Act, and (2) purchasing railroad was bound by right of first refusal and trackage rights agreement between selling railroad and third railroad.

Affirmed.

1. Arbitration ⇨23.17

Order compelling parties to arbitrate is not "final" decision.

2. Arbitration ⇨23.17

Order to arbitrate is appealable if it terminates all proceedings in district court.

3. Arbitration ⇐23.17

Substitution of purchasing railroad for selling railroad in arbitration with regard to trackage right agreement, did not terminate proceedings, but was step in complex reorganization, and was not appealable as order to arbitrate.

4. Bankruptcy ⇐858

Substitution of purchasing railroad for selling railroad in arbitration relating to trackage rights agreement between selling railroad and third railroad was appealable in bankruptcy reorganization of selling railroad as interlocutory order in a "proceeding," in that it was part of reorganization process, rather than ancillary "controversy," and was not "trivial." Bankr. Act, § 24(a), 11 U.S.C. (1976 Ed.) § 47(a).

5. Railroads ⇐129(2)

Railroad which purchased rail assets, including trackage rights agreement, from second railroad, took trackage rights agreement subject to right of first refusal which third railroad had for connecting line used in conjunction with trackage rights.

6. Federal Courts ⇐755

Meaning of documents relating to railroad's right of first refusal in trackage rights agreement was reasonably clear, and even if it were not, Court of Appeal would defer to District Court's construction.

7. Arbitration ⇐7.5

Whether there had been violation of trackage rights agreement, what price for connecting line might be, and whether purchasing railroad could use connecting line, were matters for arbitration, the ICC, the District Court in Minnesota, and the Eighth Circuit, under the terms of the trackage rights agreement, and the Arbitration Act [9 U.S.C.A. § 10].

Marvin F. Metge, Gorham, Metge, Bowman & Hourigan, Chicago, Ill., for appellants.

Larry H. Mitchell, Arnall, Golden & Gregory, Washington, D.C., for appellees.

Before POSNER, FLAUM and EASTERBROOK, Circuit Judges.

EASTERBROOK, Circuit Judge.

The Chicago, Milwaukee, St. Paul & Pacific R.R. entered bankruptcy proceedings in 1977. In February 1985 the district court approved the sale of the Milwaukee's railroad assets to the Soo Line R.R. for \$571 million. That sale has produced myriad issues. We consider today whether the order approving the sale gave the Soo Line unencumbered title to 21 miles of track between Crivitz and Marinette, Wisconsin.

This line runs east-west and connects longer north-south lines of the Chicago & North Western R.R. (CNW) and the Escanaba & Lake Superior R.R. In 1982 the Escanaba purchased from the Trustee of the Milwaukee a line of track from Green Bay, Wisconsin, north to Iron Mountain, Michigan. Crivitz is on the Green Bay—Iron Mountain line about mid-way between these cities. The sale of the Green Bay—Iron Mountain line left the Crivitz—Marinette line in the Milwaukee's hands, but as it connected the Escanaba's line to a line of the CNW, the Milwaukee's position was precarious. The Milwaukee therefore secured "trackage rights" (that is, the right to operate trains) on the Green Bay—Crivitz portion of the Escanaba's line. These rights enabled the Milwaukee's trains to reach Crivitz, from which they could reach Marinette and from there Menominee. (The Milwaukee had a trackage rights agreement with the CNW permitting travel from Marinette to Menominee.) The Crivitz—Marinette line affords shippers in these cities the benefit of competition between the Milwaukee and the CNW.

The Escanaba and the Trustee signed a "trackage rights agreement" allowing the Milwaukee to use the line between Green Bay and Crivitz and establishing detailed conditions and rates of payment for the use. Section 19.2 of this agreement provides that if the Milwaukee offers for sale the Connecting Line (defined as the Crivitz—Marinette line plus the Marinette—Menominee trackage rights), the Escanaba

MATTER OF CHICAGO, MILWAUKEE, ST. PAUL & PAC. R. CO. 833

Cite as 784 F.2d 831 (7th Cir. 1986)

"shall have a right of first refusal to purchase the Connecting Line." The agreement requires the Milwaukee to notify the Escanaba of any offer and gives the Escanaba 60 days to enter into an agreement "under the same terms and conditions". If the Escanaba declines to match the offer, the Milwaukee may sell as it pleases. Section 24.1 provides that disputes between the parties "in connection with" the agreement shall be arbitrated.

The Milwaukee transferred the Connecting Line to the Soo as part of its whole railroad. Order No. 809, which approved the sale, transfers the "rail assets" of the Milwaukee to the Soo "free and clear of all liens, security interests, claims and encumbrances, of whatever nature, whenever arising, ... except only liens, security interests, claims and encumbrances created by, or specifically permitted to remain on the Rail Assets pursuant to" the "asset purchase agreement." The asset purchase agreement is a detailed specification of the terms and conditions of the transfer, to which we return. The idea was to transfer to the Soo the rail operations and related assets of the Milwaukee while leaving the Trustee to satisfy any unrelated claims.

The Escanaba believed that the negotiation of the asset purchase agreement (which preceded the entry of Order No. 809) was a sale of the Connecting Line, and it demanded the right to match the Soo's offer. This was not easy—not only because the Soo had made a general bid not broken down by segment of track but also because the Soo wanted the Milwaukee system as a unit. The Trustee of the Milwaukee refused to sever the Connecting Line from the package, and the Escanaba instituted an arbitration under § 24.1 of the trackage rights agreement. The Escanaba asked the district court to carve the Connecting Line out of the rights to be transferred to the Soo; the Trustee replied that the transfer would bind the Soo to the provisions of the trackage rights agreement (including the right of first refusal), although the Trustee also maintained that the sale of the Milwaukee as a unit did not trigger the Escanaba's right of first refusal.

al. Shortly before the entry of Order No. 809, the panel of arbitrators concluded that the sale to the Soo violated the Escanaba's right of first refusal, and it called for further proceedings to fix a valuation on the Connecting Line. The Trustee obviously could not convey the Connecting Line after the sale to the Soo, and the Escanaba wanted the line rather than damages. So the Escanaba asked the district court to substitute the Soo for the Milwaukee as its adversary in the arbitration. The district court granted the motion, and the Soo has appealed.

[1-3] Our initial hurdle is jurisdictional. The Soo portrays the order as one compelling arbitration under 9 U.S.C. § 4, which it calls "final." But an order compelling parties to arbitrate is not a "final" decision. More remains to be done, and the grant of a request to arbitrate is not much different from setting a case for trial. There are hundreds of case-management orders in a large piece of litigation, any of which may affect the outcome, and almost none of which is appealable. See *Tenneco Inc. v. Saxony Bar & Tube, Inc.*, 776 F.2d 1375, 1378-79 (7th Cir.1985). Through a "fluke in the law" (see *Graphic Communications Union v. Chicago Tribune Co.*, 779 F.2d 13, 15 (7th Cir.1985)), the genesis of which we need not explore, an order to arbitrate is nonetheless appealable if it terminates all proceedings in the district court. *Whyte v. THInc Consulting Group Int'l*, 659 F.2d 817, 818 n. 2 (7th Cir.1981). Order No. 816, which substituted the Soo for the Milwaukee in the arbitration, did not terminate all proceedings; it is a step in a complex reorganization, best understood as a construction of Order No. 809 and the asset purchase agreement. The substitution therefore is not appealable as an order to arbitrate.

[4] It is nonetheless appealable as an order in the reorganization. Under the Bankruptcy Act of 1898, which applies to this case, any interlocutory order in a "proceeding" could be reviewed on appeal. See Section 24(a), 11 U.S.C. § 47(a) (1976 ed.).

This statute does not allow review of interlocutory orders in "controversies," which are distinct legal disputes such as tort suits against the bankrupt firm. But when the interlocutory order occurs in a "proceeding," a part of the main bankruptcy case, it is reviewable subject only to an exception for "trivial" orders. We held that the Grand Trunk R.R. may appeal under § 24(a) from the district court's decision to allow the Soo to take part in the bidding for the Milwaukee's lines, see *In re Chicago, Milwaukee, St. Paul & Pacific R.R.*, 756 F.2d 508, 511-13 (7th Cir.1985), and for the same reasons the Soo may appeal from Order No. 816. The order is part of the reorganization process rather than an ancillary "controversy" and is not "trivial."

[5] So we must decide whether the Soo is bound by the right of first refusal in the trackage rights agreement between the Milwaukee and the Escanaba. It is. It purchased the railroad assets of the Milwaukee as a bloc. One of the assets it acquired is the trackage rights agreement. The Soo does not want to be cut off from the Connecting Line, and it needed the trackage rights between Green Bay and Crivitz over the Escanaba's line. The Soo vigorously denies that it acquired § 19.2 of the trackage rights agreement, the Escanaba's right of first refusal. But there is no way it could acquire one part of the agreement without the rest, unless it be the provision of Order No. 809 stripping the transferred property of encumbrances. Section 19.2 is arguably an encumbrance on the Connecting Line and the Green Bay—Crivitz trackage rights. Yet Order No. 809 preserves encumbrances to the extent the asset purchase agreement allows, and that is fatal to the Soo's position.

Section 12(f) of the asset purchase agreement binds the Soo to "[o]bligations under all contracts and leases relating to the Railroad", and § 12(g) binds the Soo to "[o]bligations with respect to litigation and claims against the Milwaukee relating to the Railroad." The trackage rights agreement is a "contract ... relating to" the Green Bay—Crivitz trackage rights, and the Escanaba's

demands are "claims against the Milwaukee relating to" the Connecting Line. Under the asset purchase agreement the Soo assumed these obligations of the Milwaukee.

The Soo's response is that it assumed them only to the extent they affected the "Railroad," which the agreement defines as "the rail operations and rail business conducted with the Rail Assets" of the Milwaukee. This implies the conduct of an ongoing railroad, the Soo insists, and if it sells the Connecting Line to the Escanaba it is no longer an ongoing rail operation of the Soo and therefore not part of the "Railroad," as that term is defined. This is preposterous. The Connecting Line was part of the "rail business" of the Milwaukee; the right of first refusal relates to this line; the fact that the Connecting Line would not be part of the Soo's rail business after it had been sold or abandoned does not remove it from the scope of the "Railroad" as of the date of the asset purchase agreement and Order No. 809. The Soo took many assets subject to defeasance. It took leases that will expire. It took a trackage rights agreement between Green Bay and Crivitz that may come to an end some day. That the Soo's rights may have time limits does not mean that these rights and obligations are not part of the "Railroad." Were it otherwise, we would soon hear the Soo argue that its lessors cannot enforce the time limits of its leases, for any termination of the lease would remove the leased property from the definition of the "Railroad" and therefore mean that all "encumbrances" (such as the limited duration of the Soo's control) had been stripped off by Order No. 809.

[6] The district court supervised the asset purchase agreement and entered Order No. 809. It heard the Trustee of the Milwaukee represent (without protest from lawyers of the Soo, who were present) that the agreement would bind the Soo to the right of first refusal in the trackage rights agreement. The district court best knows the meaning of its own orders. The meaning of these documents is reasonably clear;

ELLIS v. UNITED STATES POSTAL SERVICE

835

Cite as 784 F.2d 835 (7th Cir. 1986)

even if it were not, we would defer to the district court's construction of them. Cf. *Metlyn Realty Corp. v. Esmark, Inc.*, 763 F.2d 826, 831-32 (7th Cir.1985).

The arbitration was not stayed pending this appeal. The Soo asked for at least \$5.2 million if it was to surrender the Connecting Line. In December 1985 the panel concluded that the portion of the price allocable to the Connecting Line was \$485,000. It ordered the Soo to transfer the Connecting Line to the Escanaba for that price. A district judge in Minnesota enforced the award. *Escanaba & Lake Superior R.R. v. Soo Line R.R.*, No. 3-85-1903 (D.Minn. Jan. 30, 1986). The Soo has transferred the line (and been paid). The ICC exempted the transfer from the approval requirement of 49 U.S.C. § 10901 but held open the possibility of ordering the Escanaba to give the Soo trackage rights over the Connecting Line. *Northeast Wisconsin Railroad Transportation Commission*, Fin. Dkt. No. 30760 (Jan. 7, 1986).

[7] Our decision does not affect any defenses the Soo may have to the arbitrators' award. We hold only that Orders No. 809 and 816, and the asset purchase agreement, transferred to the Soo the Milwaukee's obligations under the trackage rights agreement. We do not decide what those obligations are. Whether there has been a violation of the trackage rights agreement, what the price for the Connecting Line may be, and whether the Soo may use the Connecting Line are matters for the arbitrators, the ICC, the district court in Minnesota, and the Eighth Circuit, under the terms of the trackage rights agreement, the Arbitration Act, 9 U.S.C. § 10, and other pertinent statutes.

AFFIRMED.



Joseph ELLIS, Mae Campbell, Delbra Roberts, Savannah Daniels and Pearl Holmes, Plaintiffs-Appellants,

v.

The UNITED STATES POSTAL SERVICE and Postmaster Frank Goldie, Individually and in his official capacity, and Gwendolyn White, Defendants-Appellees.

No. 85-1813.

United States Court of Appeals,
Seventh Circuit.

Argued Dec. 12, 1985.

Decided Feb. 27, 1986.

Postal service employees who were unsuccessful in obtaining a promotion brought employment discrimination actions under ADEA and Title VII and constitutionally based political discrimination claims. The United States District Court, Northern District of Illinois, Eastern Division, Charles R. Norgle, Sr., J., dismissed, and employees appealed. The Court of Appeals, Ripple, Circuit Judge, held that: (1) Postmaster General, rather than postal service, was proper defendant in ADEA action, and (2) existence of comprehensive civil service remedy precluded constitutionally based political discrimination claims.

Affirmed.

1. Civil Rights ¶41

Postmaster General was proper defendant in Age Discrimination in Employment Act action, rather than postal service, in light of fact that the portion of ADEA applicable to federal employees was patterned after similar provision in Title VII and Postmaster General has been found to be proper defendant in Title VII actions. Age Discrimination in Employment Act of 1967, § 2 et seq., 29 U.S.C.A. § 621 et seq.; Civil Rights Act of 1964, § 717(c), as amended, 42 U.S.C.A. § 2000e-16(c).

SITE NAME: PIG EYE LANDFILL

DCN: 0198

PAGES: 1

DATE: 3/18/80

SOURCE: _____

AUTHOR: DON MYGAARD

RECIPIENT: GEORGE LATIMER

TITLE: OSM memo

SUMMARY: This document is a memo which states MWCC has disposed of sludge incinerator ash on the old Pig's Eye landfill. The memo discusses different options of ~~was~~ what to do with the ash such as sell for sludge ash utilization ~~gravel~~ for asphalt, building another ash basin, or obtaining a permit to continue disposing the ash at Pig's Eye.

PRP's _____

TRANSPORTERS _____

CODED BY PP

ENTERED BY _____

Q A BY _____



CITY OF SAINT PAUL
INTERDEPARTMENTAL MEMORANDUM

To: Mayor George Latimer
From: Don Nygaard
Date: March 18, 1986
Re: MWCC Sludge Ash Disposal Options

Mayor, several times over the past decade, the Waste Control Commission has disposed of its sludge incinerator ash on the old Pigs Eye landfill site off of Childs and Warner Roads. The Commission has four ash holding basins at its site which they periodically must clean out to make room for additional ash. The last time the Commission asked the City to remove the ash from the basins to Pigs Eye (about 1982), they said it would be for the last time, because the Metro Council had begun a legislatively-mandated sludge ash disposal siting process. This process has been fruitless, so the Commission asked the City again in 1984 for permission to dispose ash at Pigs Eye.

The Pigs Eye area has also been under study as a possible park site. It was to be the subject of a trade with Ramsey County involving Lilydale. Ramsey County has not been showing any willingness to accept ownership of the Pigs Eye site, probably because of reluctance to accept long-term liability for the old landfill. When the ash disposal issue came up again, the Riverfront Commission decided to use the opportunity to require MWCC to pay for much of the development costs of the park, estimated at \$4,000,000, in return for one more ash disposal. MWCC balked, applying to the City instead for a permit for a fifth ash storage basin at its site.

Last week, MWCC received proposals from 14 entities for Sludge Ash Utilization. The most favorable proposal appears to be from Commercial Asphalt of Osseo, which proposes to take all 26,000 tons per year of Metro Plant Ash beginning in May for \$15.00 per ton. Commercial Asphalt would direct load the ash from the Metro Plant silos, completely bypassing the ash basins. In addition, MWCC would remove ash from the basins, dry it, and turn it over to Commercial Asphalt. Commercial Asphalt would use the ash as an asphalt extender.

If the recycling option is delayed, I intend to have Public Works work with the Waste Control Commission on obtaining the city permit for the fifth ash basin. If the recycling option falls through completely, MWCC would ultimately have to renew efforts to dispose of ash on land at Pigs Eye. The City would likely be asking the Commission to pump the leachate resulting from the ash disposal and the old dump out of the Pigs Eye site, and treat it at the Metro Plant. We would also enter into further discussions with the Commission about long term options for the site.

Cc: Peter Hames
John Taft
Susan Kimberly

6/86

2

SITE NAME: PIG EYE LANDFILL

DCN: 01099

PAGES: 211

DATE: 6-86

SOURCE: _____

AUTHOR: _____

RECIPIENT: _____

TITLE: Statement of Donald E. Gramse

SUMMARY: This document is a statement of E. Gramse, who is a ~~manager~~ ^{Is a manager} for waste control, responses to questions asked by a representative of MPCA. The document states he hauled semi-solids from Ford Plant and was dumped in the same manner as commercial rubbish at the WDE Landfill. The document states he hauled Industrial steel ^{container paint sludges} ~~material~~ to Pig Eye.

PRP'S: FORD MC, INDSTE

TRANSPORTERS: _____

CODED BY: RP

ENTERED BY: _____

Q.A BY: _____

STATE OF MINNESOTA
OFFICE OF THE ATTORNEY GENERAL
POLLUTION CONTROL DIVISION
1935 WEST COUNTY ROAD B-2
ROSEVILLE, MINNESOTA 55113

In the Matter of:

Waste Disposal Engineering Landfill,
City of Andover, Anoka County, Minnesota

The Statement of DONALD E. GRAMSE, taken
before Vicki G. Kasten, a Notary Public in and for the
County of Koochiching, State of Minnesota, taken on the 9th
day of June, 1986, at 1935 West County Road B-2, Roseville,
Minnesota 55113, commencing at approximately 3:00 p.m.

APPEARANCES

DENNIS M. COYNE, SPECIAL ASSISTANT ATTORNEY GENERAL,
Pollution Control Division, 1935 West County Road B-2,
Roseville, Minnesota 55113, appeared for and on behalf of
the Attorney General of the State of Minnesota.

STEVEN Z. KAPLAN, ESQUIRE, of the law firm of HART,
BRUNER, O'BRIEN & THORNTON, 1221 Nicollet Mall, Suite 700,
Minneapolis, Minnesota 55403, appeared for and on behalf of
the Witness.

ROBERT E. FALSTAD, ASSISTANT COUNSEL, Sperry
Corporation, Defense Products Group, Sperry Park, P. O. Box
64525, St. Paul, Minnesota 55164-0525, appeared for and on
behalf of SW-28 Group.

MICHAEL KLUTHO, LAW CLERK, appearing for JOHN
ANDERSON, ESQUIRE, of the law firm of BASSFORD, HECKT,
LOCKHART & MULLIN, P.A., 3550 Multifoods Tower,
Minneapolis, Minnesota 55402, appeared for and on behalf of
Onan.

ALSO PRESENT: Nancy N. Misra, Solid and Hazardous
Waste Division, Minnesota Pollution Control Agency.

01101

INDEX

Examination by Mr. Coyne Page 4

EXHIBITS

GRAMSE STATEMENT EXHIBITS:

1 - Administrative Subpoena Page 5

2 - List of Companies Page 23

3 - Seniority List Page 28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

DONALD EMIL GRAMSE,

the Witness in the above-entitled
matter after having been first duly
sworn testifies as follows:

EXAMINATION

BY MR. COYNE:

Q. Would you state your full name for the record,
please.

A. Donald Emil Gramse.

Q. Mr. Gramse, I am Dennis Coyne and I represent
the State of Minnesota Pollution Control Agency and the
Attorney General's Office. We are investigating the Waste
Disposal Engineering Landfill located in Anoka County. In
the course of that investigation we have taken statements
from many witnesses, including now today your own. In the
course of the answers that you provide I would like you to
give an oral answer, one that can be heard, so that the
court reporter can take down your reply. In other words, a
nod of the head will not be able to be recorded, so if you
would always give a yes or a no or some other oral reply.
Will you try to do that today?

A. Sure. Sure will.

Q. The other thing is if you don't understand a
question that I'm asking you, if you would say so and then

01103

1 I'll make an effort to make my question clear. Would you
2 do that?

3 A. Sure.

4 Q. Mr. Gramse, you were served with a subpoena in
5 this matter, were you not?

6 A. Yes.

7 Q. I'm showing you a copy of the subpoena and I'm
8 asking you if you can recognize that? Is this a copy of
9 the subpoena which was served?

10 A. I don't have this here.

11 Q. The third page of what will be marked as your
12 Exhibit Number 1 is a copy completed by the sheriff's
13 office showing the person on whom the subpoena was served
14 and the date of the service.

15 A. Oh, yeah, the girlfriend -- girlfriend took it.
16 I see her name here. Yes, sir.

17 MR. COYNE: I'd like this subpoena to
18 be marked as Gramse Exhibit Number 1.

19 (At this time Gramse Statement Exhibit
20 1 was marked for identification by the
21 Court Reporter.)

22 MR. COYNE: Mr. Falstad, you have
23 something you would like to say on the record?

24 MR. FALSTAD: Yes. I'd like to state
25 that I'm an attorney representing the Sperry Corporation

1 which is one of the 12 parties that has entered into a
2 consent order with the Minnesota Pollution Control Agency
3 and Environmental Protection Agency. I'd like to state
4 that I'm simply attending this statement. I'm not
5 participating and will not be asking any questions.

6 MR. KLUTHO: Same here.

7 BY MR. COYNE:

8 Q. Mr. Gramse, the subpoena has your home as 711
9 North Oak Drive in Vadnais Heights. Is that your home?

10 A. That's correct.

11 Q. The sheriff's service statement says that
12 service was made on the 30th of May. Is that the
13 approximate date of service?

14 A. I don't remember.

15 Q. After the service of the subpoena, did you
16 speak with Ron Roth?

17 A. Just told him that when I got the subpoena
18 that I'd like to have legal -- a guy come with me to, you
19 know -- what's going on, you know; I don't understand it --
20 and get some legal advice.

21 Q. And what did he tell you?

22 A. He just would get me a legal advice and go and
23 answer the questions.

24 Q. And did he refer you to Mr. Thornton's office
25 and to Mr. Kaplan?

1 A. Right.

2 Q. Did Mr. Roth offer to pay your legal fees then?

3 A. No.

4 MR. KAPLAN: Well, we'll object to any
5 question dealing with payment of legal fees on the grounds
6 it's irrelevant and privileged.

7 MR. COYNE: Was there an answer to the
8 question that I asked the witness, the previous question?

9 (Whereupon the requested portion of the
10 record was read by the Court Reporter.)

11 MR. KAPLAN: Well, I'll instruct the
12 witness not to respond to the question for the grounds
13 stated.

14 BY MR. COYNE:

15 Q. Mr. Gramse, there are occasions when a lawyer
16 will object to a question and there are other occasions
17 when he will not only object but will also direct the
18 witness not to answer. The witness, of course, is free to
19 answer or not and so in this situation, Mr. Kaplan has made
20 an objection and directed you not to answer the question;
21 however, you are free to answer the question or not. And
22 so, in this situation, I'll ask a follow-up question which
23 is: will you follow the advice of Counsel and not answer
24 the question regarding payment of fees?

25 A. I'll just leave that up to my attorney.

1 Q. So you will follow his instruction?

2 A. Right.

3 Q. Now, in addition to speaking with Mr. Roth,
4 did you speak to anyone else other than Mr. Thornton or Mr.
5 Kaplan regarding your appearance here today?

6 A. No, sir.

7 Q. The subpoena, as you will note, Mr. Gramse,
8 requires you to bring with you any documents that you may
9 have and it details the kinds of documents that you should
10 bring with you if you have them. And my question is
11 whether you brought any documents with you today?

12 A. No, sir.

13 Q. Did you have any documents?

14 A. No, sir.

15 Q. Now, Mr. Gramse, you work for Waste Control
16 today. Is that correct?

17 A. Yes.

18 Q. And their address is 95 Ivy Avenue West. Is
19 that right?

20 A. Right.

21 Q. What kind of work do you do for Waste Control
22 today?

23 A. I drive a -- what they call a Dino truck.
24 It's a -- what do you call it -- just, you pick up these
25 containers that go on a truck from various locations all

1 the way around the Twin Cities. You know, you just get
2 your paperwork in the morning and whatever company they
3 give you, that's where you go, and take it to the landfill
4 and take the box back to the company and go on to your next
5 stop.

6 Q. The truck that you drive now is called a Dino
7 truck or sometimes called a Dinosaur. Isn't that right?

8 A. Right.

9 Q. And is that a truck that compacts the waste?

10 A. No. No. That just hauls containers.

11 Q. Now, have you driven this Dino truck equipment
12 for the last five years or so?

13 A. Yes, sir.

14 Q. Before that what sort of equipment did you
15 drive?

16 A. I run a Dumpster.

17 Q. And the Dumpster has either a three to
18 five-yard bucket, is that right, or an eight to ten-yard
19 bucket?

20 A. Eight to ten-yard.

21 Q. So from time to time you'd carry a three to
22 five-yard bucket and other times an eight to ten-yard
23 bucket?

24 A. Yes, sir.

25 Q. When did you first begin to haul for Waste

1 Control or Berkman Iron and Scrap?

2 A. 1969 was when I started. I wasn't on Dumpster
3 all the time. Once in awhile I'd work down in the junkyard
4 and sort scrap for them and different things like that, and
5 when somebody would call in sick, I'd go on a Dumpster now
6 and then.

7 Q. So in 1969 you started work with Waste Control?

8 A. Waste Control.

9 Q. Now, prior to that time you had also worked
10 with Berkman Iron and Scrap?

11 A. Berkman Iron and Metal, right.

12 Q. And what years was that?

13 A. I don't remember when they switched over from
14 Berkman Iron to Waste Control. I believe when I come back
15 in '69 was in with Waste Control. I don't remember if they
16 still had the scrap yard going when I did come back in '69
17 or not.

18 MR. COYNE: Let's just go off the
19 record for a minute.

20 (At this time a discussion was held off the
21 record.)

22 BY MR. COYNE:

23 Q. Mr. Gramse, while we've been off the record
24 we've been summarizing your work experience and I'd like to
25 go back then from the period from 1962 to 1967. What did

1 you do during that period?

2 A. From '62 to '67 I worked for Berkman Scrap
3 Iron and Metal, at the Ford plant hauling cardboard to
4 Waldorf Paper Company.

5 Q. And then what did you do from '62 to '67?

6 MR. KAPLAN: That was '62 to '67.

7 THE WITNESS: That was '62 to '67.

8 BY MR. COYNE:

9 Q. Sorry. '67 to '69?

10 A. I was self-employed.

11 Q. Now, what was the nature of the work that you
12 did during that period while you were self-employed?

13 A. I run a truck for A & D Supergas for a little
14 while and then I worked for Molin Concrete, and that was it.
15 Then was two places I did work off and on.

16 Q. When you started work for Berkman Iron and
17 Scrap in 1962, was that your first job?

18 A. That was my first job, yes.

19 Q. And before 1962 had you been going to school?

20 A. Right.

21 Q. And did you graduate high school?

ml11 22

23 Q. What was your last year completed?

24 A. 11th.

25 Q. I want to talk about the period from 1962 to

1 1967. And during that period you've mentioned the Ford
2 plant?

3 A. Um-hmm.

4 Q. That's a yes or no, if you can?

5 A. Yes.

6 Q. And you said that you hauled cardboard and
7 scrap? Is that right?

8 A. Just cardboard.

9 Q. What kind of equipment did you use?

10 A. We had three Ford dump trucks. We loaded and
11 hauled them to Waldorf.

12 Q. Did you go to any other account in addition to
13 the Ford plant during that period?

14 A. No.

15 Q. Then beginning in 1967 you worked with Waste
16 Control?

17 A. Waste Control.

18 Q. And what kind of equipment did you use during
19 that period?

20 A. To start, I worked in the scrap yard for John
21 Berkman and I'd go on a Dumpster truck when somebody would
22 call in sick or something, to start out with, and haul a
23 few loads a week here and there.

24 Q. And from time to time did you haul waste to
25 the Waste Disposal Engineering Landfill in Anoka County?

01111

1 A. Yes, sir.

2 Q. Just to go back a minute. This period was
3 from 1969, was it, to the present when you worked with
4 Waste Control?

5 A. Yes, sir.

6 Q. Can you recall some of the accounts whose
7 waste you did haul to the Waste Disposal Engineering
8 Landfill in Anoka County?

9 A. Oh, Ford Motor Company and Onan. And then it
10 was various construction material from accounts.

11 Q. Let's begin first with the Ford account. What
12 was the nature of the waste that you picked up from the
13 Ford account?

14 A. It was semi-solid material from their paint
15 booths and things like that. It was just scrapings that
16 they scraped off of their paint booth and stuff that they
17 loaded into this container that was dumped up in the
18 landfill.

19 Q. What kind of containers were used to contain
20 these semi-solids?

21 A. It was solid container with a slanted back
22 that sat on a -- on a truck so to make sure that if it
23 rained or something nothing would leak out or nothing.

24 Q. Does this kind of a container have a name to
25 it?

1 A. Just Dumpster.

2 Q. Now, what was the capacity of the Dumpsters
3 that were used?

4 A. These out at the Ford plant was five yards.

5 Q. Were you the only one who picked up Ford Motor
6 waste?

7 A. I don't know.

8 Q. Approximately how often during a week would
9 you pick up from the Ford Motor account?

10 A. It ranged. Every week was different. It went
11 on records and I have no way of knowing how much or how
12 many times.

13 Q. Were there weeks when you did not pick up at
14 all from the Ford account?

15 A. I believe so.

16 Q. And were there also weeks where you would pick up
17 more than once during the week?

18 A. Yes.

19 MR. COYNE: Let's go off the
20 record for a minute.

21 (At this time a discussion was held off the
22 record.)

23 BY MR. COYNE:

24 Q. Mr. Gramse, while we've been off the record we
25 have discussed the frequency of collection at the Ford

01113

1 plant with regard to these semi-solids that you have
2 described. Is it a correct statement that some weeks you
3 would pick up one five-yard Dumpster at the Ford plant?

4 A. Yes.

5 Q. And is it also true that other weeks you might
6 not pick up anything at the Ford plant?

7 A. Yes.

8 Q. And is it also true that other weeks you would
9 pick up more than one five-yard Dumpster of these
10 semi-solids from the Ford plant?

11 A. Yes.

12 Q. The semi-solids that you have described were
13 contained in this five-yard Dumpster. Is that correct?

14 A. Yes.

15 Q. How were they placed in the Dumpster?

16 A. It -- I don't know. When I went to the Ford
17 plant it was already loaded and it would just come out in
18 one big pile like a big pile of clay that was just a little
19 soft but solid. It didn't run all over or nothing or that
20 matter.

21 Q. So the semi-solids were loose in the five-yard
22 Dumpster?

23 A. Not considered loose. It would come out in
24 one big hunk like sticky clay or similar to that.

25 Q. Did the semi-solids have a smell?

01114

1 A. No, sir.

2 Q. Was there any color that they typically had?

3 A. No, sir.

4 Q. Now, these five-yard Dumpster loads of the
5 semi-solids were taken to the Waste Disposal Engineering
6 Landfill, were they?

7 A. Yes, sir.

8 Q. Describe what happened when you rolled in the
9 WDE site in Anoka County, just step-by-step.

10 A. We'd pull through the gate, drive up to the
11 window and sign your name and how many yards you had on and
12 pull into the -- where they were dumping at the landfill
13 site that day and dump your load and drive out.

14 Q. Were you directed to where to go to make the
15 dump?

16 A. They directed us to the spot that they were
17 dumping at that day.

18 Q. And who would give you those directions at the
19 landfill?

20 A. Whoever was in the office window.

21 Q. Did you happen to know or know the name Red?

22 A. I know the name Red.

23 Q. Was there a fellow at the landfill who was
24 referred to as Red?

25 A. Red, yeah. Yes.

01115

1 Q. Do you recognize the name Red St. Aoro?

2 A. No.

3 Q. Did this fellow who went by the name Red
4 sometimes give you directions where to go?

5 A. Yes.

6 Q. Did he often give you the directions where to
7 go?

8 A. No. It usually had office girl in the window.

9 Q. You know Ron Roth, don't you?

10 A. Yes.

11 Q. Did you sometimes see him at the landfill?

12 A. Yes.

13 Q. What did he do at the landfill on the
14 occasions that you were there?

15 A. I have no idea. I just have seen him up there
16 and we never talked, or very seldom have talked, if I did
17 see him up there, unless he had some question to know where
18 I was going next or what I had to do next.

19 Q. Did Ron Roth sometimes give you directions
20 where to take your load?

21 A. Yes.

22 Q. In the same manner as Red would?

23 A. Yes.

24 Q. When you took your loads and dumped them you
25 said that was in areas of landfill being worked that day?

01116

1 Is that right?

2 A. Yes.

3 Q. What kind of material was being dumped in the
4 area where you were directed to dump?

5 A. It was commercial rubbish.

6 Q. Were you sometimes told to wait at the gate
7 until other trucks were in a position or were you just
8 directed to join other trucks that were dumping in the area?

9 A. You'd just drive in and wait your turn, wait
10 to get up to the window to sign in and then just wait till
11 they had room for you to back up next to the -- after they
12 pushed it, the one that was left.

13 Q. Were other trucks dumping at the same time in
14 the same area as you were dumping?

15 A. Yes.

16 Q. Was any special effort made to cover these
17 semi-solids that you were bringing -- these semi-solids
18 that you were taking into the landfill from Ford ahead of
19 the wastes that were being deposited there by others?

20 A. No.

21 Q. So as far as you were concerned this waste
22 that you were bringing in was just being landfilled like
23 other commercial rubbish being dumped there?

24 A. Yes.

25 Q. Are you aware that there was an area at the

1 landfill that was referred to as a hazardous waste pit?

2 A. Yes.

3 Q. And how did you learn about that?

4 A. Just when you drove in by the office you could
5 see them putting these barrels, stacking these barrels into
6 the pit at the right and I just asked a few questions what --
7 what it was and they said that's where it was
8 state-inspected for -- for liquid material, put in barrels.

9 Q. Were you ever directed to use the pit?

10 A. No.

11 Q. You mentioned that you saw Ron Roth from time
12 to time at the WDE Landfill. Is that right?

13 A. Yes.

14 Q. Where did you first meet Mr. Roth?

15 A. When I worked for Waste Control and Joe
16 Polansky sold him the business.

17 Q. Approximately what year would that be?

18 A. Possibly '71, '72.

19 Q. Is he the one who hired you to work for Waste
20 Control when you went to work there in '69?

21 A. No.

22 Q. Who hired you then?

23 A. Joe Polansky. We just went along with the
24 business.

25 Q. Referring to Mr. Roth?

1 A. Right.

2 Q. Approximately over the years that you hauled
3 the Ford account and transported these buckets of
4 semi-solids, approximately how many loads did you take to
5 the WDE Landfill from the Ford account?

6 A. In how long of a stretch of time?

7 Q. Well, you can answer the question as best you
8 can. If you want to take it a number of years or the whole
9 period of years.

10 A. I just have no way of knowing how to come with
11 an answer with that. There's just no way of telling. I
12 just can't remember back that far and how many loads were
13 hauled.

14 MR. COYNE: Let's go off the record for
15 a minute.

16 (At this time a discussion was held off the
17 record.)

18 BY MR. COYNE:

19 Q. While we've been off the record you and I have
20 discussed the number of loads that you picked up from the
21 Ford account and deposited at the Waste Disposal
22 Engineering Landfill and you've supplied to me how it is
23 that you're unable to estimate the number of loads. My
24 question is would you summarize those reasons for the
25 record?

01119

1 A. Well, I worked in the scrap yard and then go
2 out to the Ford plant just once in awhile when they called
3 to haul a load. And then I'd go back to the scrap yard and
4 sometimes they'd go once a week and sometimes they'd go
5 once every two weeks or -- there's just no way of telling
6 how many loads have been hauled.

7 Q. In addition to the Ford account, you mentioned
8 that you sometimes also hauled waste from the Onan Company
9 to the Waste Disposal Engineering Landfill. Is that right?

10 A. Yes.

11 Q. Did you begin hauling this account sometime
12 after 1969?

13 A. I believe so.

14 Q. And what was the nature of the waste that you
15 hauled for the Onan account?

16 A. It was the same contents as Ford, from their
17 paint booths and material like that.

18 Q. Did you also use five-yard Dumpsters?

19 A. Three-yard Dumpster.

20 Q. Would you describe for us typically what would
21 happen when you went to pick up at the Onan account, who
22 you saw, what directions you received and then what you did
23 with the waste.

24 A. You'd pull in the Onan account and I'd back up
25 to the container and load it on the truck and go in the

01120

1 office and whoever was working in the office would sign a
2 slip saying one Dumpster load of sludge, and you'd go back
3 to your truck, and took it out to Andover Landfill.

4 Q. And by Andover Landfill you mean the Waste
5 Disposal?

6 A. Waste Disposal Landfill.

7 Q. And what typically would happen then when
8 you'd roll up to the gate at the WDE Landfill?

9 A. You'd sign in and they would direct you to
10 where they were dumping that day, and dump your load and
11 drive out.

12 Q. So you'd follow the same procedure for the
13 Onan waste as you did for the Ford waste with regard to how
14 you dumped it at the Waste Disposal Landfill?

15 A. Yes.

16 Q. Did you ever dump the sludge at the hazardous
17 waste pit?

18 A. No.

19 Q. Can you estimate the number of three-yard
20 Dumpsters from the Onan account that were taken to the WDE
21 Landfill over the years?

22 A. No.

23 Q. And is that for the same reasons generally?

24 A. Same.

25 Q. As you just described with regard to the Ford

01121

1 account?

2 A. Yes.

3 Q. Over what time period did you sometimes haul
4 the Onan account?

5 A. I really can't remember.

6 Q. Do you recall the last time that you hauled
7 from the Onan account?

8 A. No.

9 Q. In an effort to assist witnesses in their
10 efforts to recall the accounts that they picked up from
11 over the years, we have prepared a list of companies. And
12 what I'm going to ask you to do is to check off beside the
13 name of the company those companies that you recall picking
14 up wastes and then transporting the waste to the WDE
15 Landfill in Anoka County. I'm going to ask the court
16 reporter to mark this as the Gramse Statement Exhibit
17 Number 2, and then we'll give it to you and you can review
18 the list if you would, and check mark those names as I've
19 indicated.

20 (At this time Gramse Statement Exhibit
21 2 was marked for identification by the
22 Court Reporter.)

23 THE WITNESS: I guess the Ford Motor
24 Company and Forman Ford Paints. Industrial Steel Container.
25 I have hauled that one? Onan Corporation. The Rausch

01122

1 Manufacturing. That's all I can remember.

2 BY MR. COYNE:

3 Q. On the exhibit would you read off those that
4 you have check marked now as companies from which you have
5 collected waste for transport to the WDE site?

6 A. Okay. The Ford paints.

7 Q. And by that you mean the Forman Ford Paints?

8 A. The Forman Ford Paints.

9 Q. You also picked up from the Ford Motor Company?

10 A. Well, that Forman Ford Paints, ain't that the
11 same as Ford Motor Company? I thought the Forman Ford
12 Paint would be the paint side by the Ford Motor Company.

13 Q. Let me ask you this. Do you recall the
14 approximate location of the Ford plant where you made the
15 pickup?

16 A. They had changed it around different times,
17 never was in the same place. Sometimes it was in the
18 building, and sometimes they had it out behind the building.

19 Q. Do you know where the plant, though, itself is
20 located?

21 A. Right.

22 Q. And where is that?

23 A. To start with you'd come through the gate and
24 it would be in the, I believe it was Number 5 or 6 door,
25 you'd back into to pick it up. It's been there to start

01123

1 with. And then from there they'd be adding on and adding
2 on and every time they added on they'd move it.

3 Q. Is this the Ford plant?

4 A. Ford plant.

5 Q. And the plant is located on the Ford Parkway?

6 A. Ford Parkway.

7 Q. In St. Paul?

8 A. St. Paul.

9 MR. COYNE: Let's just go off the
10 record for a minute.

11 (At this time a discussion was held off the
12 record.)

13 BY MR. COYNE:

14 Q. While we've been off the record we've talked
15 about where it is that you picked up the sludges from the
16 Ford account and you have advised me that the sludges were
17 picked up where the Ford Motor Company makes trucks and
18 cars alongside the Ford Parkway in St. Paul. Is that right?

19 A. Yes.

20 Q. Now, when you talked about the Ford account,
21 you talked about the Dumpster loads. Do you recall that?

22 A. Yes.

23 Q. Did you ever pick up waste in pails from the
24 Ford account?

25 A. No.

01124

1 Q. Or buckets?

2 A. No.

3 Q. Or 55-gallon drums?

4 A. No.

5 Q. Do you know if ever anybody else did?

6 A. No.

7 Q. In addition to the Ford account what other
8 accounts have you check marked on your Statement Exhibit
9 Number 2?

10 A. Industrial Steel Container, Onan Corporation,
11 and Rausch Manufacturing.

12 Q. Let's turn our attention to Industrial Steel
13 Container. What did you pick up from Industrial Steel
14 Container?

15 A. It was three-yard Dumpster that we hauled to
16 Pigs Eye Landfill.

17 Q. And what was in the three-yard Dumpsters that
18 you --

19 A. It was the same material as Ford and Onan had.

20 Q. By that do you mean paint sludges?

21 A. Paint. It was paint sludges that they burnt
22 off of barrels and stuff that went in the container.

23 Q. Did you ever transport these paint sludges to
24 the WDE Landfill?

25 A. Industrial Steel has never went to that, no.

01125

1 Q. When you say that Industrial Steel never went
2 to the WDE Landfill, is it correct that they would direct
3 you where to take their paint sludges for disposal?

4 A. Yes.

5 Q. And they directed you to take it to Pigs Eye?

6 A. Pigs Eye.

7 MR. KAPLAN: Who is the they?

8 THE WITNESS: Ron Roth or whoever was
9 in the office.

10 BY MR. COYNE:

11 Q. When you got your assignment, that is the
12 location to pick up the wastes, were you at the same time
13 given direction as to where to take the waste after you
14 picked it up?

15 A. Yes.

16 Q. And would Ron Roth often be the one to give
17 you assignments?

18 A. No.

19 Q. But he sometimes did so?

20 A. Sometimes he'd be in the office when the
21 dispatcher didn't show up or something like this or had to
22 go somewhere, then Ron would take over the calls.

23 Q. Over the years when you worked for Waste
24 Control from 1969 to present, who has filled the position
25 of dispatcher at the company?

1 A. There has been many.

2 Q. Can you recall some of those names?

3 A. Oh, golly, no.

4 Q. Is the fellow who does it currently someone
5 that you know and can identify for the record?

6 A. The person in the office now has only been
7 there a few months.

8 Q. Before that do you know who was in the
9 position of dispatcher?

10 A. I can't remember. Nobody has lasted long.
11 It's just been a driver gets hurt, he goes in the office to --
12 the person in the office right now was hurt on the job and
13 he's dispatching and there has been a Lee Hart was hurt on
14 the job and he was dispatching for awhile. And Dave
15 Aspinol has dispatched, and a lot of them guys. I just
16 can't remember every --

17 Q. I have a list which is a partial list of some
18 Waste Control employees and I'd like the court reporter to
19 mark this list as the Statement Exhibit Number 3, and then
20 I'll hand it to you and ask you if you recognize some of
21 the people whose name is on this list as taking on the
22 dispatcher job from time to time.

23 (At this time Gramse Statement Exhibit
24 3 was marked for identification by the
25 Court Reporter.)

01127

1 THE WITNESS: Mark Linscheid is in the
2 office now.

3 BY MR. COYNE:

4 Q. What number does he have on there?

5 A. Number 13. Steve Schultz has dispatched.

6 Q. And what --

7 A. 27. Just them two on this list here.

8 Q. The last one that you mentioned was Steven
9 Schultz?

10 A. Yes.

11 Q. Do you know approximately when he dispatched?

12 A. He's dispatching right now I believe.

13 Q. And the other name you mentioned was?

14 A. Mark Linscheid, right here.

15 Q. Number 13?

16 A. Number 13.

17 Q. Do you know approximately the years when he
18 dispatched?

19 A. I believe he's only been there nine months.

20 Q. In addition to the three-yard Dumpsters picked
21 up at Industrial Steel, did they ever provide other
22 containers for wastes in addition to the three-yard
23 Dumpsters?

24 A. They had loads of steel that we used to bring
25 to the scrap yard.

01128

1 Q. Any 55-gallon drums?

2 A. No.

3 Q. Or pails?

4 A. No.

5 Q. Were empty drums ever transported from the WDE
6 Landfill to Industrial Steel offices?

7 A. Not to my knowledge.

8 Q. Now, you mentioned the Onan account earlier
9 this afternoon.

10 A. Yes.

11 Q. And you mentioned the transport of the
12 Dumpsters with paint sludge. Do you recall that?

13 A. Yes.

14 Q. And my question is whether other containers
15 were sometimes picked up by you, that is for example,
16 55-gallon drums?

17 A. No.

18 Q. Or pails?

19 A. No.

20 Q. So it is a correct statement that the only
21 containers that you picked up with the paint sludge were
22 the Dumpster units?

23 A. Yes.

24 Q. Now, you've just described that the paint
25 sludge from Industrial Steel went to Pigs Eye and that the

1 paint sludges from Ford and Onan went to the Waste Disposal
2 site. Is that correct?

3 A. Yes.

4 Q. How did the dispatcher determine that the
5 waste should go in some instances to one location for
6 disposal and other instances to another location?

7 A. Well, when I took Ford up to the landfill,
8 north landfill, if we had Onan, that was on the way coming
9 back to take Onan up there too and then go back to Ford.
10 Otherwise, the Ford Motor would go to Pigs Eye if Onan
11 wouldn't go the same day.

12 MR. COYNE: Would you read back the
13 last answer, please.

14 (Whereupon the requested portion of the
15 record was read by the Court Reporter.)

16 BY MR. COYNE:

17 Q. Did you ever transport the paint sludges from
18 Ford to Pigs Eye?

19 A. Yes.

20 Q. And is it correct that when you were hauling
21 the Ford and Onan accounts on the same day you would take
22 both accounts to the WDE Landfill?

23 A. Yes.

24 Q. At other times if you did not pick up the Onan
25 account and only took the Ford account would you take the

01130

1 Ford account to Pigs Eye?

2 A. Yes.

3 Q. Did the Onan account ever go to Pigs Eye?

4 A. No.

5 Q. Was the Ford account closer so Pigs Eye than
6 it was to WDE?

7 A. Yes. And it was closer to take Ford up to the
8 north landfill if you were going to Onan at the same time.

9 Q. You've also check marked Rausch Manufacturing
10 on the second page of Exhibit Number 2. Is that right?

11 A. Right.

12 Q. And what material did you pick up from the
13 Rausch account?

14 A. That was like a silica sand and little water.

15 Q. And what kind of container was used to
16 transport this material?

17 A. The same type of container as Ford and Onan.

18 Q. And the capacity?

19 A. Five yards.

20 Q. Five-yard Dumpsters?

21 A. Dumpster.

22 Q. And where did this material go?

23 A. That went to north landfill and Pigs Eye too.

24 Q. And by north landfill you mean the WDE?

25 A. WDE.

01131

1 Q. Typically when you took this Rausch account to
2 the WDE Landfill would you describe the procedure that
3 you'd go through for disposal once you arrived at the WDE
4 Landfill?

5 A. You'd pull through the gate, pull up to the
6 window, sign in and they'd direct you to where they were
7 dumping at that day and dump your load and go back to the
8 company.

9 Q. Did you ever dump these loads in the hazardous
10 waste pit?

11 A. No.

12 Q. Did the silica sand have an odor to it?

13 A. No.

14 Q. Did it have a color?

15 A. White.

16 Q. What was its consistency?

17 A. It was -- they made molds out of it to -- for
18 die castings and material and it was just to hold -- a mold
19 to hold the die cast together to different shapes and form.

20 Q. When you unloaded the Dumpster at the landfill
21 did it pour out like sand does?

22 A. It was a dryer material, yes.

23 Q. A dryer material than the paint sludges?

24 A. No, about the same. Once in awhile it would
25 stick. You'd have to take a shovel and shovel it out. It

01132

1 would cake up.

2 Q. Can you estimate the number of times that you
3 transported these five-yard Dumpsters from the Rausch
4 account to the WDE Landfill?

5 A. That went five days a week pretty steady.

6 Q. On a typical day how many Dumpsters would be
7 transported?

8 A. One a day.

9 Q. Did you haul this account then every day?

10 A. Yes.

11 Q. Did others also from time to time service this
12 account?

13 A. Yes, when I was on vacation and different
14 times they had me doing something else, yes.

15 Q. Did this account only go to the WDE Landfill?

16 A. That went to Pigs Eye and different places too.

17 Q. How is it that it sometimes went to other
18 places other than the WDE Landfill?

19 A. It was up to the office to dispatch where they --
20 what side of town they wanted you to go in case they had a
21 construction load up north or wherever your next load would
22 have been.

23 Q. Is it correct that the office then made the
24 decisions where the waste would be taken for disposal?

25 A. Yes.

01133

1 Q. As you look through this list which is Exhibit
2 Number 2, are there other companies or locations from which
3 you transported waste to the WDE Landfill?

4 A. No.

5 Q. You'll notice on the first page of the exhibit
6 there is reference to Federal Cartridge Corporation. That
7 is the Twin Cities Army Ammunition Plant. Did you
8 sometimes pick up wastes at the Twin Cities Army Ammunition
9 Plant?

10 A. No.

11 Q. In addition to this list of companies and
12 people who are set out on Exhibit Number 2, are there other
13 accounts from which you transported waste to WDE Landfill
14 in Anoka County? Locations, companies or people that are
15 not on this list?

16 A. No.

17 MR. KAPLAN: Could I have your question
18 one more time, Dennis? I'm sorry.

19 BY MR. COYNE:

20 Q. Maybe I can say it a bit more clearly. You
21 have testified that insofar as people and companies are
22 named on Exhibit Number 2, you check marked the ones from
23 which you picked up waste and took the waste to WDE.

24 A. Right.

25 Q. My question is are there companies or people

01134

1 or locations from which you picked up wastes, took it to
2 WDE landfill which are not on our list, Exhibit Number 2?

3 A. Not to my knowledge.

4 Q. One of the companies on this list is the Foley
5 Manufacturing Company. Did you ever pick up any wastes at
6 Foley?

7 A. No.

8 Q. Have you ever in the course of your years of
9 employment picked up barreled wastes and transported them
10 to a landfill for disposal?

11 A. No.

12 Q. Did others working for Waste Control sometimes
13 transport barreled wastes for disposal?

14 A. Yes.

15 Q. As you look at, for example, Exhibit Number 3,
16 can you identify some people who you know did transport
17 liquid waste for disposal?

18 A. I really don't remember anybody who did do it.
19 I just seen drums up to north landfill that they were
20 putting in the pit. I don't know who hauled them up there
21 or where they come from.

22 Q. When you observed the pit, what did you
23 observe? What was going on in those times when you saw the
24 pit and the activities?

25 A. They had a truck with a boom on it that they

01135

1 had a strap around the barrels and set them on -- one on
2 top of another and cover them with sand, I believe it was,
3 or they had -- the state inspectors were there watching the --
4 the situation, what was being put in and how it was handled.

5 Q. How do you know that state inspectors were out
6 there?

7 A. They had "State of Minnesota" on the car doors.

8 Q. So you saw some State of Minnesota vehicles
9 from time to time?

10 A. Time out there, yes.

11 Q. Did you ever see 55-gallon drums at the WDE
12 site at locations other than alongside the pit or in the
13 pit?

14 A. No.

15 Q. Did Waste Control ever operate a transfer
16 station?

17 A. Not to my knowledge.

18 Q. You know what a transfer station is?

19 A. To dump garbage in one place and haul it out.
20 Not to my knowledge.

21 Q. Have other drivers for Waste Control been to
22 the WDE Landfill in addition to yourself?

23 A. Yes.

24 Q. And who are among those that you're aware of
25 as having been out at the WDE site?

01136

1 A. John Bolin, I believe.

2 Q. Now, you're referring to the list of people,
3 for example, on Exhibit 3, right?

4 A. Right.

5 Q. And John Bolin is Number 7 on that list, is he?

6 A. Yes. I don't know some of these guys here.
7 That's the only one really that I recognize that I have
8 seen up there.

9 Q. Now, how do you place John Bolin at the WDE
10 site?

11 A. I really don't know. He hauled these 40-yard
12 packer boxes. Where they come from, I don't know, or --

13 Q. When you saw John Bolin at the WDE site, you
14 saw him with a 40-yard --

15 A. Packer box.

16 Q. Did you ever see him transporting drums?

17 A. No.

18 Q. In addition to John Bolin, do you recall
19 seeing any other Waste Control driver at the WDE Landfill?

20 A. Not right offhand. We all have been there,
21 but like I say, I didn't get there every day and know
22 everybody that has been up there.

23 Q. What I'd like to do is get a description as
24 complete as we can of the paperwork that was involved with
25 the disposal of waste. Can you describe for us from the

01137

1 beginning through the end what was the nature of the
2 paperwork that was used when wastes were disposed of?

3 A. It was a tablet form paper with lines on it
4 where you'd sign your name and how many yards you had. And
5 that was it.

6 Q. Were you given this tablet information when
7 you reported to the dispatcher?

8 A. No. That would come from the landfill. You
9 report to the landfill window and get this sheet of -- you
10 get the tablet and you sign your name and how many yards
11 you had and then you'd hand it back in the window.

12 Q. So that paperwork was completed at the
13 landfill?

14 A. At the landfill.

15 Q. Did you keep a copy of the paperwork that you
16 completed at the landfill?

17 A. No.

18 Q. When you got your assignments from the
19 dispatcher did you have any kind of paper then?

20 A. You just have a slip of paper with the
21 companies on it and some days you'd get one load, some days
22 you get two and then when you'd get that done you'd call in.

23 Q. The paper that you were sometimes given by the
24 dispatcher, did that have the place where other wastes were
25 supposed to be transported?

01138

1 A. Yes.

2 Q. Did you hand in any paper back to the
3 dispatcher or back to the Waste Control company?

4 A. You'd have a Waste Control book and you'd have
5 your receipts, daily receipts.

6 Q. And by receipts, what do you mean?

7 A. From the companies that signed that you have
8 hauled the loads.

9 Q. What information was in the Waste Control book?

10 A. It just had the company's name, address, and
11 then they would have the telephone number and then you'd
12 just write in there whatever you hauled, how many yards you
13 hauled and you'd get a signature from the company you
14 hauled it from.

15 Q. Would that be the receipt you referred to?

16 A. The receipt you hand in. That was the only
17 paperwork that was handed in.

18 Q. Is it the same kind of paperwork that you go
19 through today?

20 A. Yes, sir.

21 MR. COYNE: I'd like to take just a
22 brief break and we'll finish up.

23 (At this time a brief recess was taken.)

24 BY MR. COYNE:

25 Q. Mr. Gramse, is there any part of your

01139

1 statement that you've given this afternoon which you would
2 like to clarify or correct?

3 A. No.

4 Q. You have the opportunity to read and sign the
5 transcript. You may also waive the reading and the signing.
6 Have you made a decision in that regard?

7 A. I'll just waive it.

8 MR. COYNE: Thank you for appearing
9 today in response to the subpoena that was issued to you.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Vicki G. Kasten
Court Reporter

SITE NAME: PIG EYE LANDFILL

DCN: 01141

PAGES: 1

DATE: 6-11-68

SOURCE: _____

AUTHOR: _____

RECIPIENT: _____

TITLE: COMPLAINT REPORT RE: COSTPA

SUMMARY: THIS document is a complaint report
in which COSTPA is the alleged
POLLUTANT. The complaint reads
that COSTPA has dumped street sweeping
over a bank ~~in the area of~~
for years, ~~and~~ a recently garbage
& raw sewage and residents are
complaining about odors

PRP's COSTPA _____

TRANSPORTERS _____

CODED BY RP _____

ENTERED BY _____

Q A BY _____

COMPLAINT REPORT

County Ramsey	City ST. Paul	Region Metro	Sequence No. 3395
SOURCE OF ALLEGED POLLUTANT:		Date Received 6-11-86	Time Received
Name City of ST. Paul		Received By Bill Regan	
Address		Sketch N	
City		<div style="display: flex; justify-content: space-between; align-items: center;"> W E </div> <div style="text-align: center; margin-top: 100px;">S</div>	
Telephone No. ()			
Section	Township		
Range			
Location City of St. Paul Streetsweeping dump. at the end of Minnehaha Avenue west of Lafayette.			
Problem/Situation Description			
<p>The city of ST. Paul has dumped their street are sweepings over the bank here for years. The local residences have recently said that the city is dumping garbage + raw sewage here also. They are complaining about strong odors. The complainant has a contacted the City (Al Shetka) about it already + Shetka confirmed that some garbage has been dumped there.</p>			
Inspection Findings			
Action Taken/Comments			

SITE NAME: PIG EYE LANDFILL

DCN: 01142

PAGES: 2

DATE: 6-18-86

SOURCE: _____

AUTHOR: BILL REGAN

RECIPIENT: — FILE

TITLE: OFFICE memorandum

SUMMARY: THIS document is a memo which discusses
an investigation to follow up COSTPA Street Sweeping
dump. The investigator states that access to the
dump was not restricted therefore random garbage
was there, and street piles did smell; no raw
sewage was seen, and spoke with Al Snetka,
Supervisor of Street Maintenance.

PRP's COSTPA _____

TRANSPORTERS _____

CODED BY Rf

ENTERED BY _____

Q A BY _____

Route to:

- (1) Lisa F. 292 6/20/86
 (2) Jim W. 292 6/20/86
 (3) _____
 (4) _____

OFFICE MEMORANDUMFile: Ramsey CountyLocation: ST. Paul Minnehaha Avenue near Rivoli street
(City, Village, Township, Section, Range, County, etc.)Subject: ST. Paul Street Sweeping dump, Complaint follow up # 3395.By Whom: Bill Regan Date: June 18, 19, 20 1986Investigation ☒ Office ☐ Conference ☐ Field ☐ Hearing ☐ Meeting ☐ Phone ☐Items to be Covered: (1) Those present and/or those interviewed
 (2) Situation
 (3) Further action, follow-up, recommendations

2) I received a complaint about this dump on June 11, 1986. The local residences complain that the City of St. Paul was dumping garbage and sewage sludge, here in addition to the street sweepings. I visited the site on Wednesday, June 18, 1986 about 11:30 AM and met Rick Hlawka (Ramsey Co) and one of the neighbors there. The site was posted as a street sweeping dump and had a fenced gate on the entrance road but was open during the inspection. Free access to the dump has resulted in a poor operation and random dumping by many people. Demo debris was scattered throughout the site. While I was there, a truck from the St. Paul light maintenance department dumped a load of concrete and a truck from the St. Paul Police Dept. (a building maintenance dumped 2 small garbage cans of garbage (building cleanings)). I did not observe any sewage sludge but did see moist-wet piles of street sweepings that did smell.

While I was at the site, Al Shetka (292-6676, Supervisor of Street Maintenance) showed up. I told Al about the 2 other city departments that had just dumped wastes there and that I was concerned about the present condition + use of the site. I told him the site had to be cleaned up + the access restricted. He agreed to do the following: - remove the brick demo waste

- keep the gate locked at all times (have the street sweeping truck driver
- install more signs at the entrance open it only when they have a load dump

- call the other Dept. heads + tell them no more dumping.

- MIFD -

I told Shetka that MPCA would allow the site to be used for street sweepings if it were cleaned up and monitored more closely in the future to eliminate the random dumping. Both Shetka + Rick Hawks concurred with this view.

- # Ramsey County first heard about this complaint on May 16, 1986 and talked to the City about it on May 19, 1986. However, this had little effect + the dumping of demo + garbage continued.
- # June 19, 1986. I talked with the complainant again. He said the dumping was continuing and was very upset. The residences were telling their story to the media (Channels 4 + 5) and plan to sue the City. WCCO called Dale Newton to get a statement on PCA's stand on the dump. Lisa Thorwig + I told Dale to tell the media that the problem had been addressed in the short term (by better access control + cleaning the site) but we would have to wait till Monday to talk to SW Permits as to whether the site should be permitted.
- # I talked to Al Shetka again. He was going to post a person at the entrance 1 1/2 weeks, keep the gate locked and had already contacted the other department heads.
- # June 20, 1986. I called Al Shetka again to get an estimate of the size of the dump. It has been used for 15-20 years. He applies 15-20,000 tons/yr of sand to the streets and we assumed this would be the amount going to the dump also. One ton of sand roughly equals $1\frac{1}{2} \text{ yds}^3$. So the ~~annual~~ annual disposal rate is about $25,000 \text{ yds}^3/\text{yr}$. Over a 15 year period, this amounts to about $400,000 \text{ yds}^3$.
- # on June 19, 1986, I called Bob Peterson (MPLS Street Department) to find out what MPLS does with their street sweepings. He said in the past they have filled depressions on city property with it. They no longer have property available for this so they stockpile it at Minnehaha Ave + 24th Street South. Then they periodically haul it away to a cemetery + bury it in coffins.
- 3. Develop a statement regarding longterm PCA regulation of this waste + inform Dale Newton. Bill-pls. follow-up on our require-

CITY OF SAINT PAUL
INTERDEPARTMENTAL MEMORANDUM**RECEIVED**

JUN 23 1986

MPCA, SOLID & HAZ,
WASTE DIVISION

TO: Sue Vannelli

FROM: Al Shetka

DATE: June 19, 1986

RE: Rivoli dump site

Following is what I relayed to you concerning actions that I have taken after a June 18th field trip to the Rivoli dump site.

When I visited the site, at approximately 11:30 a.m. on June 18th, Mr. Bill Regan, of the Minnesota Pollution Control Agency, was there and also a gentleman from Ramsey County Environmental Health--I do not recall his name. Before I arrived they had observed a police vehicle dumping some miscellaneous debris (other than street sweepings). There was also a Mr. Mike Meyers from the neighborhood there who had confirmed that vehicles other than Public Works street sweeping disposal trucks were dumping also. Previous to this I had dumped some bricks mixed with dirt on the site, too.

After discussing the matter with Bill Regan, who does monitor this street sweeping disposal site, I took the following course of action effective June 18th: All city agencies, Police, Traffic, Water, Parks, Sewers, etc., were contacted and informed that under no circumstances could material other than street sweepings be disposed of at this site; more signs will be posted at the entrance stating "Street Sweepings Only"; the bricks and general demolition material that is on the site (and accessible) will be immediately removed; the gate to the site will be locked at all times and the gate and general appearance at the entrance will be improved. Our truck drivers will be issued keys and will open and close the gate each time they ingress and egress the site. This will not only prevent city agencies from "sneaking in" but will also prevent private citizens from illegally disposing of material at this location.

I am confident that this strong policing effort will eliminate any future problems at this site.

AJS/djj

cc: Donald E. Nygaard

Bill Sandercock

Bill Regan, MPCA

10. P.M. 1244
SW 01145
From: D. Newton
P10 2.
6-26-86

Railroad Islanders battle city over a smelly dump

Dead dogs, sewer sludge raise their ire

By George Beran *P.Press*
Staff Writer 6-26-86

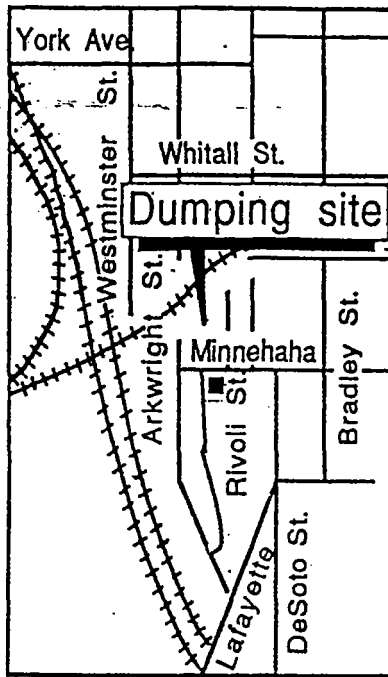
Residents of Railroad Island, an old St. Paul neighborhood in the process of being revitalized, want the area to stop being the city repository for street sweepings, storm sewer gunk and animal carcasses.

In recent weeks, a group of residents led by Allen Wilcox, 401 E. Minnehaha Ave., started a campaign to rid the neighborhood of a Public Works Department hillside dump at Minnehaha Avenue and Rivoli Street.

Wilcox and his wife, Marla, bought a house across the street from what they considered was a scenic hillside with a fine view of the Capitol. After moving in two years ago, they discovered that the site was a dumping ground that attracted city trucks at all hours of the day and night.

The dump site used by Public Works for 10 years or more was supposedly limited to disposal of sandy street sweepings from around the city.

Wilcox said City Hall paid no heed for two years to his complaint calls about the wide variety of trash passing for street sweepings at the dump. "Regular garbage,



Alex Leary/Staff Artist

Map shows the dump site at Minnehaha Avenue and Rivoli Street.

concrete, huge chunks of tar, raw sewage — you name it, they've been dumping it up here," he said.

Two or three times a summer,

Wilcox said, he finds a dead dog or cat on his front lawn, dragged there from the dump by a dog.

Noxious odors wafting from the site a week ago caused Wilcox and his neighbors to film the extent of the dumping and confront the Public Works Department with the evidence.

The residents set up a camera in the Wilcox home and videotaped eight hours of dumping by 30 trucks, including a load of smelly gunk sucked from storm sewer catch basins.

Although Wilcox maintains that the foul smells of the dump site were caused by sewage sludge, Public Works Director Donald Nygaard said the offensive material was cleaned out of storm sewer basins.

"It smells like sewage," said Wilcox. "The city denies it. We know better."

"It wasn't all that bad," said Nygaard, comparing the smell with that of an over-active compost pile.

After ordering crews to cover the decaying material with sand, Nygaard examined the videotape and took steps to control the dump-

Please see Dump/2C

Continued from Page 1C
ing.

He said that trucks from the Water Utility and Parks Department were dumping pieces of concrete and other debris at the site in violation of Public Works Department policy and a state dumping permit.

To make sure that only street sweepings are dumped there in keeping with the permit, Nygaard has installed a lock on a gate leading to the site and stationed an employee-monitor there five days a week.

Wilcox said the number of trucks

has declined at the site since Nygaard took action, but he and the neighbors may file suit to protect the neighborhood's health and safety. "We're looking to close it down and have the city remove all the material dumped there."

Nygaard said the department hopes to use the site until it is filled up in six or seven years. "There's really nothing in the city that's available any more," he said, noting that the only alternative is to haul the material 20 miles to the Pine Bend Landfill.

Staff writer Katherine Lanpher contributed to this article.

METROPOLITAN COUNCIL
Suite 300 Metro Square Building, Saint Paul, Minnesota 55101

DATE: September 30, 1986
TO: Metropolitan Waste Management Advisory Committee
FROM: Parks and Natural Resources Division (Jack Frost)
SUBJECT: Certificate of Need (CON) Report on Sludge Ash Disposal Facilities

INTRODUCTION AND BACKGROUND

The 1980 Waste Management Act (WMA) directed the Council to site a sludge ash landfill. In early 1981, the Council named 31 potential sites to be examined for ash disposal. The Council held a number of public meetings regarding the suitability of each of the sites. It finalized its criteria for choosing a site and ranked the sites based on those criteria. Based on this ranking the Council chose eight sites to evaluate further as part of the intrinsic suitability determination process. In late 1982 the Minnesota Pollution Control Agency (MPCA) found three of these ash sites to be intrinsically suitable. The Council then began preparation of an Environmental Impact Statement (EIS) on each of the sites, in accordance with the act. In 1983 the Council requested access to the sites to ascertain the hydrogeology of the sites so a proper EIS could be prepared. Originally access was denied and many delays ensued trying to gain access.

During this siting process the Council kept hearing that it was not doing enough in the way of looking for alternatives to a Commission-owned landfill or examining ways to remove the heavy metals from the ash. To address the first concern the Council conducted a study examining alternative uses of sludge ash in late 1982. This study found that the use of ash in asphalt was a feasible alternative; however, additional testing was needed. The Council and the MWCC began working with the Minnesota Department of Transportation (Mn/DOT) to evaluate the use of ash in asphalt. At this same time the MWCC was also instituting its industrial pretreatment program which required industries to stop discharging various pollutants, mainly heavy metals, into the MWCC's sewer system.

In 1984 the Council requested that the WMA be amended to allow the Council to complete the CON prior to the completion of the EIS. This request was made for several reasons. First, the MWCC had been experimenting in using ash in asphalt and it appeared that this alternative could be implemented and utilize all of the ash produced by the Commission. Second, there was staunch opposition by the property owners of the candidate sites to allowing the Council, short of legal action, to gain access to the sites to prepare the EIS unless the Council could demonstrate that a site was definitely needed. During the 1985 legislative session the law was amended to allow the CON to be prepared before the EIS was completed.

In addition to the above changes, the 1986 legislature directed the Council and the MPCA to decide whether there are permitted ways to manage the MWCC's sludge ash other than land disposal. If both the Council and the MPCA agree that there are, the landfill siting process can stop.

To respond to the concerns raised by the legislature the Council has prepared two separate reports and has hired a consultant to prepare another report which address various aspects of the CON process. In March 1984 the Council prepared a report entitled "The Potential for Large-scale Sewage Sludge Composting and Co-composting in the Metropolitan Area". In 1985 the Council hired Black and Veatch a nationally recognized environmental engineering consultant to evaluate alternatives to landfilling ash. In addition, the Council staff has completed a report which looks at the question of hazardous materials in the sludge and ash and ways to remove these potential hazards. All of the pertinent information from these reports is summarized in the attached CON report.

The Committee is asked to recommend the attached staff report on the CON for a new sludge ash landfill for the purpose of setting a public hearing. Section 473.153 Subd. 4a of the Waste Management Act requires that the Council hold a public hearing on the need for a MWCC owned and operated disposal facility.

FINDINGS AND CONCLUSIONS

how? For the purpose of the CON report the potentially hazardous materials in the sludge and ash have been defined as: nickel, chromium, cadmium, zinc, copper, mercury, lead and PCB's. There are a number of activities currently ongoing which are addressing the reduction of these materials. First, the MWCC has an Industrial Pretreatment program which requires all industries to comply with a local and federal pretreatment requirements as they relate to the above metals. A central metal recovery facility has been proposed which will help a number of industries achieve compliance with the MWCC rules. This facility will be operational by late 1987. Second, there is a program to eliminate combined sewer overflows which will reduce the amounts of metals that go to the treatment plants. This program will take up to ten years to complete. With these programs instituted the concentrations of these metals in the sludge and ash will be reduced from 10 to 60 percent depending on the metals of concern.

Currently the concentrations of these metals in the sludge or ash are not considered a problem. With the programs as outlined above the concentrations of these metals will be reduced even more making the sludge and ash more amenable to recycling or disposal. The concentrations of these metals should be monitored to make sure they do not cause a problem in the future.

There are a number of ways to treat the sewage and sludge for metal removal once the metals get into the waste. However, these measures are very costly and produce a sludge which is a hazardous waste which must be disposed of. It is more cost-effective to treat the source of the waste than to allow these materials to get into the waste. The MWCC also has a monitoring program which will be able to determine if these metals are causing problems in the sludge, on the treatment process or in the water quality. If problems are identified corrective measures can be instituted to require stricter pretreatment of industrial waste or additional treatment at the facility. Also if any substantial increase in the amounts of these metals are detected the MWCC should ascertain the reasons for these increases and take appropriate corrective measures. The Council should be kept apprised of the status of industrial pretreatment program and the levels of metals in the sludge and ash.

The MWCC should continue its industrial pretreatment program and enforce its rules as it relates to compliance with heavy metal discharges to the sewer system. The MWCC should also continue to identify fugitive industries, such as industries that do not report metal loading to the MWCC, that are not complying with its rules.

It appears that the Twin Cities area is closer to implementing a large scale co-composting project based on on-going research than it was two years ago when the Council originally examined this issue. *how so?*

The MWCC is conducting the most research anywhere in this country or abroad on ash utilization. A number of alternatives to a MWCC owned landfill were examined. These alternatives included ash utilization and ash reduction alternatives along with landfilling of ash in non-MWCC owned landfill facilities. In regard to ash utilization alternatives versus ash landfilling the costs were essentially the same. The environmental impacts were generally the same. The main differences were regarding the reliability and the implementability of the alternatives. The preferred alternatives were the recovery of metals from the ash and the disposal of ash in private landfills. Regarding the ash reduction alternatives there were very little differences except in the case of sludge disposal at the Seneca plant. At the Seneca plant it was determined to be feasible and prudent to discontinue sludge incineration and to either compost or land apply the sludge.

Landfilling with all of its inherent problems is still the only alternative that has been utilized over a number of years and will continue to be used, although to a lesser extent, for the foreseeable future. However, there are a number of promising alternatives to landfilling which could be implemented on a full scale. Use of ash in asphalt is the most promising of these alternatives, if Mn/DOT would agree to use the ash in state road projects. Until any of the alternatives have been demonstrated for a number of years they can not be considered entirely reliable. Legislative amendments would be necessary if landfilling in a private landfill is as a desired alternative.

Composting of sludge is a proven technology. However, additional research on end uses and markets should be completed before this option can be fully considered for large scale operation.

In accordance with the WMA the Council must address the following questions after it holds a public hearing:

1. ARE THERE PERMITTED MANAGEMENT METHODS OTHER THAN LAND DISPOSAL, TOGETHER WITH LAND DISPOSAL ON PROPERTY OWNED BY THE COMMISSION PRIOR TO MARCH 1, 1986, THAT WILL BE SUFFICIENT TO ACCOMODATE ALL THE COMMISSION'S ASH WITHOUT THE ACQUISITION AND ESTABLISHMENT OF A NEW FACILITY?
2. IS THE DISPOSAL OF WASTE WITH CONCENTRATIONS OF HAZARDOUS MATERIALS NECESSARY?
3. IS ASH DISPOSAL NECESSARY?
4. ARE THERE FEASIBLE AND PRUDENT METHODS OF REDUCING THE CONCENTRATIONS OF HAZARDOUS MATERIALS IN THE WASTE?

5. ARE THERE FEASIBLE AND PRUDENT ALTERNATIVES TO ASH DISPOSAL, INCLUDING LARGE-SCALE COMPOSTING AND CO-COMPOSTING OF SLUDGE, WHICH WOULD MINIMIZE ADVERSE IMPACTS UPON NATURAL RESOURCES?

RECOMMENDATION

That the Council hold a public hearing on December 3, 1986 at 7:30 p.m. at the Shakopee High School to solicit comments on the Certificate of Need report.

jf2con-PHOPN1
9.30.86

CERTIFICATE OF NEED REPORT
ON
SLUDGE ASH DISPOSAL FACILITIES

by

James Frost

Metropolitan Council of the Twin Cities Area
300 Metro Square Bldg., 7th and Robert Sts.
St. Paul, Minnesota 55101 612-291-6359

October 1986

Publication No. 590-86-083

METROPOLITAN COUNCIL

Sandra S. Gardebring, Chair

Liz Anderson, District 1
Mike McLaughlin, District 2
Charles W. Wiger, District 3
Carol Flynn, District 4
Leon Cook, District 5
Joan Campbell, District 6
Mary Hauser, District 7
Donald Stein, District 8

Josephine D. Nunn, District 9
Philip C. Carruthers, District 10
Dorothy Rietow, District 11
Gertrude Ulrich, District 12
Dirk deVries, District 13
Raymond J. Joachim, District 14
Mary K. Martin, District 15
Patrick J. (Pat) Scully, District 16

The Metropolitan Council coordinates the planning and development of the seven-county Metropolitan Area. The Council is authorized by state and federal laws to plan for highways and transit, sewers, parks and open space, airports, land use, air and water quality, health, housing, aging and arts.

CONTENTSPage

EXECUTIVE SUMMARY.....	
ISSUE STATEMENT.....	
SLUDGE ASH LANDFILL SITING - A HISTORY.....	
ABOUT THIS REPORT.....	
CURRENT SYSTEM.....	
HAZARDOUS MATERIALS IN SLUDGE AND ASH.....	
Sources of Heavy Metals.....	
Environmental Implications.....	
Leachate Generation.....	
EXISTING PROGRAMS TO DEAL WITH HEAVY METALS.....	
ALTERNATIVE METHODS OF SLUDGE AND ASH MANAGEMENT.....	
Requirements and Assumptions for Certificate of Need.....	
Ash Alternatives.....	
Use in Asphalt.....	
Use as Aggregate.....	
Landfill Reclamation.....	
Heavy Metal Recovery.....	
Use in Speciality Concrete Products.....	
Land Application.....	
Sludge Alternatives.....	
Land Application.....	
Composting.....	
Heat Drying.....	
Landfilling.....	
Continuing Siting Process.....	
Use of Private Landfills.....	
Co-disposal with NSP Coal Ash.....	
EVALUATION OF ALTERNATIVES.....	
FINDINGS AND CONCLUSIONS.....	
RELATED ISSUES.....	
BIBLIOGRAPHY.....	
TABLES	
1. Annual Sewage Treatment Plant Sludge Production.....	
2. Ash Alternatives Evaluation and Ranking.....	

EXECUTIVE SUMMARY

To be added.

ISSUE STATEMENT

In 1985, approximately 2 million people living in the Metropolitan Area and a plethora of institutional, commercial and industrial activities together produced over 280 million gallons of sewage daily. This sewage was treated by any one of the 12 sewage treatment plants owned and operated by the Metropolitan Waste Control Commission (MWCC). The sewage treatment process then produced over 200,000 tons of sludge that had to be disposed of in an environmentally acceptable manner. Since the mid-1970s, when the MWCC and the Metropolitan Council decided to incinerate the majority of the sludge and recover its energy value to run various treatment processes at the metropolitan wastewater treatment plant, approximately 18,000 tons of ash have been produced annually.

The sludge processing system at the metropolitan wastewater treatment plant, which produces 75 percent of the sludge, is highly dependent on a heat-generating process, presently relying on incineration. The heating system for sludge processing was designed at a time when energy shortages were lurking in the future and, therefore, using sludge as a fuel made eminent sense. The incinerators and heat treatment process were built primarily with federal and state grants that amounted to well over \$100 million.

The complexity of the sewage treatment process, the overwhelming size of the metropolitan wastewater treatment plant and the magnitude of the present investment in the heat generating and sludge processing systems dictate that any switch to a different treatment process be carefully phased in over time.

The remaining 25 percent of the sewage treatment-generated sludge is produced by 11 MWCC-owned sewage treatment plants. These plants, with the exception of the Seneca WTP, do not have incineration capabilities and none of them are dependent on a heat-treatment process. Presently, the sludge from these plants is handled at the metro plant or landspread. As a result, sludge management at these plants, with the exception of Seneca for the most part, provides for more flexibility than at the metro plant, both on a long-term and short-term basis.

The 280 million gallons of sewage generated and treated daily come from a variety of activities, such as residential land use, and commercial and industrial uses. All of these uses put into the sewer system an almost innumerable list of chemicals that, in varying quantities, are considered or known to be toxic or hazardous. It is these chemicals that are then found in the sludge and ashes resulting from incineration that have caused the concern for potential environmental and human health damages. In 1980 the Minnesota legislature passed the Waste Management Act, which, among other concerns with solid waste management, directed the Metropolitan Council to find a landfill site for the sludge ash containing hazardous chemicals and determine the need for such a landfill.

The problem which then must be addressed is what does one do with the approximately 18,000 tons of ash now produced annually? Is the composition of the ash such that the ash must be disposed of in a properly constructed and monitored landfill? Or can the ash be put to good use? Can chemicals entering the sewer system be reduced in volume and variety to make the sludge ash more usable? Finally, can land spreading of treated sludge or composted sludge be made acceptable to the public in this Metropolitan Area?

SLUDGE ASH LANDFILL SITING - A HISTORY

The 1980 Waste Management Act (WMA) directed the Council to site a sludge ash landfill. In early 1981, the Council named 31 potential sites to be examined for ash disposal. The Council held a number of public meetings regarding the suitability of each of the sites. It finalized its criteria for choosing a site and ranked the sites based on those criteria. Based on this ranking the Council chose eight sites to evaluate further as part of the intrinsic suitability determination process. In late 1982 the Minnesota Pollution Control Agency (MPCA) found three of these ash sites to be intrinsically suitable. The Council then began preparation of an Environmental Impact Statement (EIS) on each of the sites, in accordance with the act. In 1983 the Council requested access to the sites to ascertain the hydrogeology of the sites so a proper EIS could be prepared. Originally access was denied and many delays ensued trying to gain access.

During this siting process the Council kept hearing that it was not doing enough in the way of looking for alternatives to a Commission-owned landfill or examining ways to remove the heavy metals from the ash. To address the first concern the Council conducted a study examining alternative uses of sludge ash in late 1982. This study found that the use of ash in asphalt was a feasible alternative; however, additional testing was needed. The Council and Commission began working with the Minnesota Department of Transportation (MN/DOT) to evaluate the use of ash in asphalt. At this same time the MWCC was also instituting its industrial pretreatment program which required industries to stop discharging various pollutants, mainly heavy metals, into the MWCC's sewer system.

In 1984 the Council requested that the WMA be amended to allow the Council to complete the Certificate of Need (CON) prior to the completion of the EIS. This request was made for several reasons. First, the MWCC had been experimenting in using ash in asphalt and it appeared that this alternative could be implemented and utilize all of the ash produced by the Commission. Second, there was staunch opposition by the property owners of the candidate sites to allowing the Council, short of legal action, to gain access to the sites to prepare the EIS unless the Council could demonstrate that a site was definitely needed. During the 1985 legislative session the law was amended to allow the CON to be prepared before the EIS was completed.

In addition to the above changes, the 1986 legislature directed the Council and the MPCA to decide whether there are permitted ways to manage the MWCC's sludge ash other than land disposal. If both the Council and the MPCA agree that there are, the landfill siting process can stop.

The Council is required to prepare a CON in accordance with Minn. Stat. 473.153, subd. 6b, which states:

The disposal of sludge ash generated by the Metropolitan Waste Control Commission (MWCC) is not permitted in the Metropolitan Area without a certification of need (CON) issued by the Council indicating the Council's determination:

- (a) that the disposal of waste with concentrations of hazardous materials is necessary; and

(b) that ash disposal is necessary.

The Council shall certify need only to the extent that there are no feasible and prudent methods of reducing the concentrations of hazardous materials in the waste and no feasible and prudent alternatives to ash disposal, including large-scale composting and co-composting of sludge, which would minimize adverse impact upon natural resources. Methods and alternatives that are speculative or conjectural shall not be deemed feasible and prudent. Economic considerations alone shall not justify the certification of need or the rejection of methods or alternatives, including large-scale composting and co-composting of sludge as an alternative to incineration. In its certification the Council shall not consider alternatives which have been eliminated from consideration by the selection of sites pursuant to subdivision 2.

ABOUT THIS REPORT

This report will address both the requirements of the CON as well as the need to continue the landfill siting process. The following questions must therefore be answered in this report:

1. ARE THERE PERMITTED MANAGEMENT METHODS OTHER THAN LAND DISPOSAL, TOGETHER WITH LAND DISPOSAL ON PROPERTY OWNED BY THE COMMISSION PRIOR TO MARCH 1, 1986, THAT WILL BE SUFFICIENT TO ACCOMMODATE ALL THE COMMISSION'S ASH WITHOUT THE ACQUISITION AND ESTABLISHMENT OF A NEW FACILITY?
2. IS THE DISPOSAL OF WASTE WITH CONCENTRATIONS OF HAZARDOUS MATERIALS NECESSARY?
3. IS ASH DISPOSAL NECESSARY?
4. ARE THERE FEASIBLE AND PRUDENT METHODS OF REDUCING THE CONCENTRATIONS OF HAZARDOUS MATERIALS IN THE WASTE?
5. ARE THERE FEASIBLE AND PRUDENT ALTERNATIVES TO ASH DISPOSAL, INCLUDING LARGE-SCALE COMPOSTING AND CO-COMPOSTING OF SLUDGE, WHICH WOULD MINIMIZE ADVERSE IMPACTS UPON NATURAL RESOURCES?

To respond to the charge of the legislature the Council has prepared two separate reports and has hired a consultant who has prepared another report which address various aspects of the CON process. In March 1984 the Council prepared a report entitled "The Potential for Large-scale Sewage Sludge Composting and Co-composting in the Metropolitan Area". In 1985 the Council hired Black and Veatch, a nationally recognized environmental engineering consultant, to evaluate alternatives to landfilling ash. This report was recently completed and submitted to the Council. In addition, the Council staff has completed a report which looks at the question of hazardous materials in the sludge and ash and ways to remove these potential hazards. (See Bibliography.)

This report attempts to present various facts regarding both hazardous materials contained in sludge and ash and alternative methods to utilize or dispose of the sludge and ash. The Council is required to hold a public hearing on this report and then to determine whether it can certify that the disposal of ash with concentrations of hazardous materials is necessary and that ash disposal is necessary. If the Council can make these certifications then the siting process for an MWCC-owned and operated sludge ash landfill will continue. However, if the Council fails to make these certifications on the need for a MWCC owned landfill then the MPCA must concur that there are permitted alternatives landfilling before the siting process can be stopped.

To address the questions raised in the legislation several terms must be defined for use in this report.

What is meant by the term "hazardous materials" contained in the Waste Management Act? This term is not defined by the act. For the purposes of this CON report this term was defined based on environmental concerns relating to soil and groundwater contamination, as well as materials which have a significant

national, state or regional data base. A hazardous material is therefore defined as any material which contains one or more of the following parameters: copper, lead, nickel, zinc, chromium, cadmium, mercury and PCB.

The Waste Management Act requires that the Council address alternatives that are both feasible and prudent. Therefore, it is necessary to define what is meant by feasible and prudent. The Council's Solid Waste Management Development Guide/Policy Plan was recently amended to address this issue as it relates to solid waste landfill Certificate of Need.

Feasible is defined as:

An alternative is feasible if it is technically feasible and consistent with sound engineering practices, that is, there are known methods or technology which successfully can be put into practice to accomplish the task. An alternative is not feasible if it is experimental, theoretical or not capable of reliable operation at the appropriate scale.

Prudent is defined as:

An alternative is prudent if it is not expected to result in extraordinary, unusual or unique nonenvironmental adverse impacts or environmental impacts substantially more adverse than the impacts from the proposed project.

These definitions were further refined as part of this study to address additional considerations.

Feasible refers to the implementability and reliability of each alternative. Implementation considerations include the time required to put an alternative into action, which is evaluated by identifying existing implementation obstacles. Reliability is measured by the ability of an alternative to be counted on to do what is expected or required when it is expected or required. In large part, reliability is established through the demonstration of dependability over an adequate period of time.

The determination of a prudent alternative is dependent on its environmental impacts, health risks, and economics. However, only if significant cost differences were found to exist did economics play a factor in determining prudence.

Finally, this report is broken into three sections. The first section deals with the existing system. The second section discusses the hazardous materials contained in the sludge and ash. The final section deals with the alternatives to an MWCC-owned sludge ash landfill.

CURRENT SYSTEM

The MWCC currently operates 12 treatment plants in the Metropolitan area which treat the sewage from a population of approximately 1.9 million people as well as most of the industrial waste produced in the area. The largest plant is the Metropolitan Plant in St. Paul which has a design capacity of 250 million gallons of sewage per day (mgd). The Metro plant treats approximately 85 percent of the sewage in the Metro area. In 1985 the average daily flow at the Metro plant was 222 mgd. Almost 200,000 wet tons of sludge and 18,000 tons of ash were produced in 1985. Most of the sludge was incinerated with only about 11,000 tons of sludge being applied to farm land. In addition to the Metro Plant, the Seneca plant also has incineration facilities which produced approximately 3600 tons of ash in 1985. Table 1 summarizes the sludge production at all of the Commission treatment plants in 1985. Only the Metro and Seneca plants produce ash while the other plants produce a sludge which must then be properly disposed of.

Table 1

1985 Sewage Treatment Plant Sludge Production

<u>Treatment Plant</u>	<u>Annual Sludge Production Dry Tons</u>
Anoka	335
Bayport	107
Blue Lake	6,235
Chaska	286
Cottage Grove	206
Empire	771
Hastings	402
Metropolitan	66,437
Rosemount	831
Savage	80
Seneca	12,209
Stillwater	<u>428</u>
Total	88,327

NOTE: Annual sludge production includes sludge transported from other treatment plants for further processing.

The incineration and energy recovery facilities at the Metro plant, which saved the MWCC about \$1.5 million last year, are an integral part of the treatment process. Sludge is conditioned using a wet air oxidation process which requires 20,000 BTU/hour of energy to operate. This energy is currently supplied by recovering the waste heat from the incinerators and producing steam in boilers. If the incinerators were not operated this steam would be produced by burning fuel oil, a non-renewable natural resource. With the volatility of national oil market the availability and price of fuel oil could be widely variable from year to year. The ash from the Metro plant is temporarily stored in silos and then sluiced or hauled to the ash lagoons located adjacent to the treatment plant for long term temporary storage. Since these lagoons are located in the flood plain of the Mississippi River they can be used on only a temporary basis unless a variance from MPCA rules is granted.

The Seneca plant does not have energy recovery facilities on its incinerators.

Since the Metro plant began operation in 1938 ash has been sluiced to the area around Pig's Eye Lake and has been deposited to a considerable depth. In the early 1970s the MPCA required that the MWCC place the ash in contained basins. On two previous occasions the MWCC has cleaned out the basins and deposited the ash, as cover material, on the closed Pig's Eye landfill which is located about 1,000 feet north of the ash lagoons. Currently the MWCC has four basins for ash storage. These basins are almost full and only about 200 days of storage within the basins currently exists. The MWCC is stacking ash on top of the existing basins in order to buy additional time while necessary permits for a fifth basin are sought.

The Seneca plant has two ash lagoons located adjacent to the plant site. On two previous occasions the MWCC cleaned out these basins and placed the ash on private property, immediately North of the lagoons, as fill material. Approximately one year of storage remains at the Seneca ash lagoons.

HAZARDOUS MATERIALS IN SLUDGE AND ASH

A report entitled "Hazardous Materials in Sewage Sludge and Ash", has recently been prepared on the constituents in sludge and ash which also addresses in detail the efforts that are on going and that are recommended to continue on ways to reduce the hazardous materials contained in sludge and ash. This report will summarize the important findings from the more detailed report on hazardous materials.

Sludge is made up of both organic and inorganic matter. The organic matter comes from both domestic and industrial sources. Because of the diversity of industries in the Metro area the sludge probably contains trace quantities of almost every chemical known to man. While some organic compounds may cause an environmental problem not much research on the acceptable concentrations of these organic compounds in sludge has been conducted. Therefore, this report will concentrate on the heavy metals and PCB's contained in the sludge.

The CON is required to make two separate findings regarding hazardous materials. First, is disposal of waste with concentrations of hazardous materials necessary and second, are there feasible and prudent methods of reducing hazardous materials in the waste. It appears that the rationale behind these findings is that if the hazardous materials i.e. the heavy metals and PCB's contained in the ash can be reduced that it would make it easier from both a political as well as an environmental perspective to dispose of the sludge and ash.

SOURCES OF HEAVY METALS

Before one can discuss ways to reduce the heavy metals in the ash one must be cognizant of the sources of these contaminants. Industrial wastes are a prime contributor of these metals in the sludge. However, there are a number of other sources as well. These sources include normal domestic sewage, storm water runoff, leachate from sanitary landfills, contaminated water from hazardous waste sites and other transported waste e.g. septic tank waste and chemical toilets. While industrial users are a major source of these metals controlling only these users will not make the sludge or ash contaminant free. Therefore, a multi-pronged approach must be taken.

ENVIRONMENTAL IMPLICATIONS

After one knows who is contributing metals to the sludge one must ascertain the levels of these materials in the sludge and whether they are causing a problem or are likely to cause a problem. When these metals are discharged to the plant some of the metals will pass through the plant directly to the river, mostly in a dissolved form, and some will accumulate in the sludge. Those metals in the sludge will be further concentrated in the ash. However, at what concentration are these metals occurring? The actual concentrations are quite variable from year to year and from plant to plant so an exact concentration is difficult to determine. However, in general the concentrations of these metals have been reduced over the last several years in the sludge and ash at both the Seneca and Metro Plants because of the MWCC's industrial pretreatment program.

LEACHATE GENERATION

In most instances, the amount of metals in the sludge or ash is such that it does not have a significant impact on the environment. The only case where total mass loading would be significant is if the material were ingested directly by either human or animal. Under some conditions, for example, by maintaining proper soil pH for sludge land applications or by not landfilling the ash below the groundwater table, very little of the metals in the sludge or ash will leach into the surrounding environment. In other cases where the environment is acidic (corrosive), the metals will readily leach out of the sludge and ash. There are a number of tests that have been developed that measure the amount of leachate from a normal environment and from an acidic environment. The MWCC has conducted these tests and the results are well below the limits established by MPCA for co-disposal of the ash in a sanitary landfill. In addition, for sludge land application, the MPCA has set annual and cumulative loading limits for various metals which must be adhered to for proper utilization of the sludge. To date these limits have not hampered the sludge land application program.

A comparison of the quality of the leachate from urban and rural soils with the quality of leachate from sludge ash was made. Based on this analysis ash is no worse than a number of different soils, and both the ash and the soils are usually orders of magnitude less than the allowable limits established by the MPCA for codisposal in sanitary landfills.

EXISTING PROGRAMS TO DEAL WITH HEAVY METALS

Even though the ash and sludge do not currently constitute an environmental problem it is good policy to reduce the metals in the sludge and ash to the lowest extent practical. This will enhance the characteristics of both the sludge and ash so it will be less of an environmental concern, allow other utilization alternatives and reduce the potential for liability. Several programs are already in place which will reduce the metal concentration in the sludge and ash and several programs are proposed.

The Environmental Protection Agency (EPA) has issued mandatory industrial pretreatment regulations for various industrial groups which must be met by all industries within that group. The MWCC has adopted EPA's industrial pretreatment rules and are enforcing these rules in the Metro area. To date most industries have complied with these rules. The industries that have not complied are under a compliance schedule issued and enforced by the MWCC to comply with the categorical standards by late 1987. Most of the industries that have not complied are metal plating industries. These industries contribute a substantial amount of copper, chromium, nickel and zinc to the sewer system. The industries that have not complied are relying on a central metal recovery facility to process its waste. This facility is proposed to be completed by late in 1987. It is anticipated when the central metal recovery facility comes on line the reduction in those metals of concern will be from 10 to 60 percent.

Another major source of metals is storm water runoff. Minneapolis, St. Paul and South St. Paul still have a number of combined sewers, that is, sewers which convey both storm water and sewage to the treatment plant. During periods of heavy rainfall these sewers overflow into the Mississippi River and allow raw sewage as well as storm water to be discharged into the river. These three cities, the MWCC and the Council have reached an agreement with EPA and the state to eliminate these overflows to the river by separating their sewers and having separate facilities that convey storm water to the river and sewage to the treatment plant. This program will help to eliminate those metals which are part of the storm water from coming to the treatment plant. This program is going to cost over \$250 million and will take 10 years to complete.

There are several treatment methods that can be used to remove metals once they get into the treatment plant but they are extremely costly. However, unless it can be shown that the metals are causing an environmental problem there is no justifiable reason to go to these higher levels of treatment. There are other methods which can be used to reduce the metals coming to the plant that would be less costly than treatment.

ALTERNATIVE METHODS OF SLUDGE AND ASH MANAGEMENT

REQUIREMENTS AND ASSUMPTIONS OF CERTIFICATE OF NEED

The WMA requires the Council to address two questions as part of the CON: first, is ash disposal necessary and second, are there feasible and prudent alternatives to the disposal of ash including large scale composting and co-composting of sludge. Black and Veatch of Denver, Colorado was hired to examine all feasible and prudent alternatives to a MWCC owned ash landfill.

Black and Veatch surveyed 38 wastewater treatment plants throughout the United States of similar size to the Metro and Seneca plants which have incineration facilities. They found that only three plants do not landfill or lagoon the ash they produce. Two of these facilities recover metals from the ash but they do not indicate what they do with the ash after the metals are removed and the third facility uses the ash as fill material. They also surveyed many European and Japanese facilities and found similar results.

A number of alternatives to a MWCC landfill were examined. These alternatives were in two different categories: ash utilization and ash reduction.

From an extensive survey of other incineration facilities, consideration of transferring utilization technology from the coal ash industry and proposals to the MWCC from various private companies to utilize the ash in a number of different methods a list of alternatives was developed. The following alternatives for ash utilization were addressed:

- 1) use in construction materials both in aggregate and in asphalt,
- 2) land application of ash,
- 3) land reclamation,
- 4) metals recovery and
- 5) other utilization alternatives.

The following ash reduction alternatives were considered for the Metro plant:

- 1) incineration and heat drying of the sludge,
- 2) incineration and land application of the sludge and
- 3) incineration and composting of the sludge.

Ash reduction alternatives considered for the Seneca plant were:

- 1) incineration and land application of the sludge and
- 2) composting of all of the sludge.

In addition to these alternatives, the no action alternative which is the continuation of the landfill siting process, the landfilling in private commercial landfills and the co-disposal with NSP coal ash were addressed.

Each of the alternatives listed previously was analyzed based on its implementability, reliability, environmental impacts, health risks and economics.

If ash minimization alternatives at the Metro plant are to be examined what is the logical split between incineration and other alternatives? For the purposes of this report utilization of 35 percent of the sludge being produced with 65 percent continuing to be incinerated was chosen. This figure was

chosen because of the energy requirements of the treatment plant. To produce the steam needed in the sludge conditioning process 65 percent of the sludge must be burned. In addition, the facility as constructed was funded by both state and federal grants. If these facilities are not utilized the MWCC could be required to pay back both the federal and state grants. This amount could range from \$10 to \$100 million depending on the facilities that would not be used.

Since sludge conditioning is an integral part of any ash minimization alternative it was determined that it would not be efficient to utilize outside sources of steam to run this process. Eventhough the plant can and does utilize all of the steam it produces from incinerating 100 percent of the sludge it was determined that this additional energy utilization was not as critical and could be made up by purchased energy. In the cases where energy was to be purchased this factor was evaluated as part of the economic analysis.

The alternatives for ash minimization at the Seneca plant were analyzed assuming 100 percent sludge utilization.

ASH ALTERNATIVES

USE IN ASPHALT

Utilization of ash in asphalt is permitted by MPCA and has been demonstrated on a limited basis. An agreement with the Mn/DOT has not been reached for use of ash in asphalt on state projects. Mn/DOT's main concern seems to be the potential liability if the ash is ever declared a hazardous waste. Commercial Asphalt, who has made a formal proposal to the MWCC to utilize ash in asphalt has indicated that they would be unwilling to take the ash if they could not receive Mn/DOT approval for use of ash in asphalt on state projects. Based on the criteria established this alternative is technically feasible; however, its implementability and long term reliability are uncertain. Therefore it is not currently a feasible alternative under our definition. This alternative meets the criteria for being prudent.

USE AS AGGREGATE

Several proposals for use of ash in aggregate have been made. The University of Minnesota has requested funding for a full scale research project which will convert the ash into light weight aggregate in a process similar to taconite pelletization. The University is currently seeking a patent for this process. This alternative is highly speculative at this time but may have very good long term benefits if it could be implemented. The MWCC has received another proposal to mix the ash with cement and make an aggregate which could then be used in various concrete products. Additional testing on this proposal would be necessary and permits would be required from the MPCA. Again this proposal could take all of the ash produced but there may be some concern with liability. Regarding both of these proposals there is a question regarding the marketability of the products sold that contain the ash aggregate. Based on the criteria established this alternative maybe prudent but its feasibility is not assured because its reliability and implementability have not been demonstrated.

LANDFILL RECLAMATION

Two companies have proposed, to the MWCC, to reclaim gravel quarries using ash mixed with other materials. Both companies are currently testing their process to stabilize the material to determine if it meets MPCA's requirements for leachate contamination. A permit from MPCA would be required as well as approval from the county in which the land reclamation project would be. Each of these companies can take the existing ash as well as the new ash. This alternative is not as feasible as use in asphalt because no permits have been received. Therefore, its implementability is not assured. Based on the preliminary results it appears that this alternative would be prudent but the long term impacts of land reclamation are not known.

HEAVY METAL RECOVERY

The recovery of precious metals and phosphorous from the ash is another possible alternative. A firm from Nevada has proposed taking all of the ash in storage to South Dakota for processing and then utilize the remaining ash to make aggregate. South Dakota officials are currently reviewing a permit application for this solid waste processing facility. It is expected that the states review will be completed in October. The Commission has entered into a contract with this firm to haul out all of the existing ash at a cost not to exceed \$7 million. This contract is contingent upon issuance of a permit by South Dakota. This alternative will clean out all of the existing basins and will give the Commission a number of years of temporary storage while it pursues other utilization alternatives. The implementation of this alternative buys the MWCC time but it does not solve the Commission's long term problem of ash disposal. This firm has also indicated that it would be willing to renegotiate its contract with the MWCC to accept the ash which is currently being produced. This alternative is both feasible and prudent.

USE IN SPECIALITY CONCRETE PRODUCTS

Another proposal has been received which proposes to use the ash as a cement or fine aggregate substitute in speciality concrete products. There maybe some concerns on this proposal regarding potential liability as well as receiving MPCA permits. Like the alternative to make aggregate the use of ash in cement appears to be prudent but it may not be feasible because of the implementation requirements and reliability. The marketability of ash containing products has not been demonstrated and is therefore unknown at this time.

LAND APPLICATION

An additional alternative was evaluated for the Seneca plant that was not applicable to the Metro plant i.e. direct land application of the ash. This alternative was felt to be viable at Seneca because of the low heavy metal content of the sludge. The ash could provide a number of micro nutrients that are required for good plant growth as well as lime. This program has not been done in this area and the acceptance by the farming community is unknown. Additional research would be necessary to show the benefits of this program. Because of the research requirements and the lack of farmer acceptance this alternative is not feasible or prudent at this time.

SLUDGE ALTERNATIVES

A number of alternatives were examined which reduced the amount of ash produced. At the Metro plant three different ways to reduce the ash were examined: 1) land application of lime stabilized sludge on private farmland, 2) composting the sludge in an enclosed facility using wood chips as a bulking agent, and 3) heat drying of sludge at the Metro plant in a process similar to what Milwaukee uses in producing Milorganite. Two alternative methods of reducing ash at the Seneca plant were examined: 1) land application of sludge and 2) composting of all of the sludge using an in-vessel reactor on the plant site. In addition, large scale co-composting was addressed at the Metro plant. This alternative is different from the other composting in the bulking agent used and in the size of the project.

LAND APPLICATION - METRO

Lime stabilization for land application is required to reduce odors at both the plant and at the spreading site and it is a process to reduce pathogenic organisms in the sludge. The cadmium concentration in the sludge is the limiting factor based upon the EPA annual loading rate of 0.45 pounds of cadmium per acre. This loading rate would only supply 35 percent of the nitrogen needs of 125 bushel per acre corn. Whether farmers would participate in this type of program is unknown. This type of program has been demonstrated by the MWCC for a number of years. However, a number of complaints regarding odors, truck traffic and environmental concerns specifically volatile organics and county restrictions have hampered the program. Because of the limited nitrogen supply to the crops the implementability of this program is not known. Also relying on private farmers willing to participate in the program is not reliable. Therefore, the feasibility of this alternative is low and the prudence is acceptable.

LAND APPLICATION - SENECA

This alternative used 50 percent of the sludge for 5 months and applied sludge during only the spring and fall before or after crops are harvested. The sludge would be stabilized using lime to prevent odor problems. The sludge application will meet 100 percent of the nitrogen requirements of the crops to be grown. This alternative was judged to be both feasible and prudent. Reliability was lower with this alternative because of the reliance on private farmers for utilization than alternatives which relied on MWCC owned land.

COMPOSTING - METRO

The proposed composting process is the static pile facility utilizing forced aeration. The proposed end markets would be mainly turf growers and horticultural uses. Most of the storage for the finished compost would take place at the end users facility. Composting on this scale and marketing this quantity of compost has not been accomplished in this area. While composting is a demonstrated technology its long term reliability in this area has not been proven. Implementation should not be a problem even if permits are required.

COMPOSTING - SENECA

In vessel composting of 100 percent of the sludge was evaluated. The end market for the compost would be the turf and horticultural industry. The system proposed would use sawdust and tree trimming as a bulking agent so screening of the finished compost would not be needed. This alternative was also both feasible and prudent. The reliability of this alternative is similar to the alternative above.

HEAT DRYING

This alternative was examined because the MWCC has two dryers currently in the sludge processing building which are not used. This alternative was evaluated using 17 percent sludge in lieu of 35 percent because of the energy requirements of the dryers. The end markets would be similar to that of compost. In both of these alternatives permits from MPCA would probably be required because of the heavy metal content of the finished product and only permitted sites could receive the product for use. Because of the many problems the MWCC has had with these dryers the reliability of this alternative is questionable. In this particular alternative the cost to implement and to operate this alternative was substantially more than the other alternatives. Therefore, the prudence of this alternative is also questionable.

LARGE-SCALE COMPOSTING

As required by the Waste Management Act the Council prepared a report dated March 1984 entitled "The Potential for Large-scale Sewage Sludge Composting and Co-composting in the Metropolitan Area". The following were the major findings:

1. That additional research on the chemical and physical properties of locally produced compost and co-compost as well as additional end use market analysis was necessary before a large scale co-compost project could be considered a feasible and prudent alternative to sludge incineration.
2. The University of Minnesota is the logical body to perform the necessary research project for composting and co-composting.
3. The MPCA should evaluate its current regulations and develop appropriate regulations to govern the production and marketing of compost and co-compost.
4. The metropolitan counties are encouraged to examine small-scale co-compost facilities using septage and sludge from outlying metropolitan treatment plants as part of the counties' solid waste abatement plan.

Since this report was prepared all of these major findings have been acted on. The University of Minnesota is in the second year of a two year study looking at co-composting. The MPCA has proposed new regulations to deal with composting. Several of the counties are looking into various co-composting projects using sludge. A number of major cities e.g. Denver, Philadelphia, Washington D.C. and Baltimore have either begun composting or are planning to compost their sludge. Based on the work that has been done here and elsewhere it appears that the Metropolitan area is closer to implementing a large scale compost project than it was two years ago when the original report was prepared.

LANDFILLING

Several landfill alternatives were examined: 1) the no action alternative which is the continuation of the landfilling process, 2) the use of private landfills for the disposal of ash and 3) the co-disposal of MWCC ash with NSP coal ash in a NSP facility.

CONTINUING SITING PROCESS

This alternative assumes that the Council would continue to site a permanent landfill to be owned and operated by the MWCC. This alternative assumed state-of-the-art landfill designs utilizing liners, leachate collection system, and monitoring wells. This alternative has the greatest reliability for the MWCC but its implementation is uncertain. The environmental impacts are greater than using the ash in asphalt. Therefore, the feasibility of this alternative is low. The prudence of this alternative is questionable.

USE OF PRIVATE LANDFILLS

It has been assumed that any private landfill would be a "state-of-the-art" landfill. In addition, the ash would be landfilled in a separate cell from the normal mixed municipal refuse. This alternative is being examined because of the new solid waste law requiring no unprocessed waste to be landfilled after 1990. This being the case the synergistic effects of co-disposing of ash and municipal solid waste is greatly diminished as is any potential liability. Based on recent amendments to the WMA this alternative cannot be implemented unless the law is again changed to allow landfilling in a private facility. This alternative, while it may be prudent, is not feasible until legislative changes are made.

CO-DISPOSAL WITH NSP COAL ASH

Like the above alternative this alternative is not feasible unless the WMA is amended. In addition, NSP is currently looking for a landfill for its coal ash and unless they can find a site they would probably be unwilling to accept the MWCC ash at any price. Some testing has been done on the mixtures of the ashes and there does not appear to be any negative impacts but there are also no benefits to NSP to allow the mixing of the ash.

EVALUATION OF ALTERNATIVES

Each alternative was evaluated based on both environmental and nonenvironmental factors. A weighting system was established which was used to rank each of the alternatives. Table 2 shows how each of the alternatives ranked based on these factors. In addition, an economic analysis which looked at both capital and operation and maintenance costs on a present worth basis was conducted.

Table 2
ASH ALTERNATIVES EVALUATION
AND RANKING

<u>Implement- ation Schedule</u>	<u>Relia- bility</u>	<u>Environmental Assessment</u>	<u>Total Ranking Value</u>
--	--------------------------	-------------------------------------	------------------------------------

Ranking based on scale of 1 to 5, with 1 being the most desirable.

UTILIZATION

Ash in Asphalt	1	3	2	6
Ash in Aggregate	5	3	3	11
Land Application	2	2	3	7
Land Reclamation	2	3	3	8
Metals Recovery	2	3	4	9

LANDFILL

MWCC-Owned	5	1	3	9
Private Landfill	1	2	3	6
NSP Co-disposal	2	1	3	6
CO-COMPOSTING	4	2	3	9

*Implementation is contingent on MN/DOTs willingness to allow ash in asphalt

Various factors went into determining the ranking of each of the alternatives. Regarding implementation, the factors considered were: regulatory requirements, liability, public opinion, technology and the time required for full scale implementation. Regarding reliability, the factor considered was whether MWCC had control over the implementation of the alternative. The factors considered in the environmental assessment were impacts on the air, soil and land.

The final non-quantifiable factor considered was health risk. Two generic health risk cases were evaluated one based on utilization and the other on land application of the ash. Because of the lack of site specific conditions only a comparative analysis of the health risks of these two alternatives could be conducted.

Regarding all of the alternatives for either utilization or landfilling there are a number of concerns regarding liability. In today's era of cradle to grave responsibility for disposal of any hazardous materials there are questions raised regarding liability. Since the MWCC is the producer of the ash they are ultimately responsible for any reuse or disposal if there is environmental damage caused by the ash's use or disposal. Therefore, because of this unknown liability the MWCC must assess the comparative risks and liability of each of the alternatives.

While the ash is not a hazardous waste it does contain a number of constituents that are of concern. Based on current standards these materials leach at a rate that does not cause environmental problems. However, as more scientific data is gathered there may be a tightening of the standards for heavy metals in the ash. This may result in the ash being considered an environmental problem. It is unknown whether the ash will meet these standards if they are in fact lowered.

All landfill alternatives even in state-of-the-art landfills have some degree of risk. The liners may fail, the collection system may not function properly, any number of things may happen to allow a release of leachate to the environment. There is also the permanence of landfilling and the monitoring requirements. The alternatives that bind the ash in some form be it asphalt, concrete or as an aggregate are safer than landfilling the material in a raw state. The other option of removing the metals and landfilling the residual would be safe if it is carried out properly.

Another question which arises regarding liability is whether it is better to have all of the ash in one place so one can keep track of it or to spread it out over a greater area at a greatly reduced concentration as in asphalt or land spreading. If one assumes that it would be a hazard in the future it would be prudent to keep it all in one place even at higher concentrations. However, if you assume that ash will not be a problem in the future, dilution over large areas maybe a more safe environmental policy.

Other than ash in aggregate each of the other alternatives are relatively close in their rankings. The rankings regarding implementation and reliability address the feasibility of each of the alternatives. The ranking regarding environmental impacts address the prudence of the alternatives.

Based on the factors considered metal recovery from the ash and landfilling of ash in either a private landfill or co-disposal with NSP coal ash were ranked as the most feasible and prudent alternatives. The cost of utilization is dependent on the contract negotiated by the MWCC for ash utilization. To determine a present worth cost for these alternatives a range of costs for ash utilization from \$15 to \$60 per wet ton was used. Based on these factors the present worth costs ranged from \$74 million to \$87 million and the landfilling costs ranged from \$81 to \$89 million for use in either a private landfill or a MWCC-owned landfill. The differences in these cost are not significant considering the level of accuracy of the cost estimates. Regarding the proposal to recover the heavy metals from the sludge at a cost of approximately \$30 per ton the present worth would be \$78.6 million. However, there were significant differences in the areas of reliability and implementation. In the area of environmental concern there were very minor differences between the alternatives.

How much risk does one want to assume if any one of the utilization alternatives fails? Sludge is produced everyday and there must be a reliable way of disposing of the sludge. Otherwise it would be discharged into the river, a violation of our National Pollutant Discharge Elimination System (NPDES) permit. Thus a multiple approach should be taken with sludge and ash disposal. No single alternative should be relied on to handle the entire problem.

A separate department at the MWCC with authority over all stages of sludge disposal from planning to operation should be instituted to adequately address the implementation of utilization alternatives and disposal. Implementation of several utilization alternatives should be attempted so that if one fails another utilization option can be geared up to full scale. In addition, if ash cannot be disposed of on any given day, temporary storage facilities will also be required.

Should a landfill, be it a private landfill or an MWCC-owned landfill, serve as a backup to ash utilization alternatives? The need for a landfill depends on the degree of reliability or risk that one wants to assume. Relying on the utilization of all of the ash has a certain degree of risk associated with it. If the ash basins are cleaned out, according to the current proposal, then the MWCC will theoretically have ten years of temporary storage available at the Metro Plant. If this is the case then the need to rely on the use of landfilling as a backup method for disposal while other alternatives are being developed is remote. However, if this amount of storage is not available then it would be logical to have some type of landfill alternative available as a backup to utilization. It should be remembered that relying on a private landfill will have a lesser degree of reliability than an MWCC-owned landfill because of the lack of control over the operation of the facility.

In evaluating the ash minimization alternatives for the Metro Plant there were no differences with regard to the environmental impacts except for a reduction in air emissions over utilization alternatives. If meeting air pollution standards becomes an issue when the new sludge incineration rules are adopted by EPA, ash reduction alternatives should again be considered. There were also insignificant differences in the implementation, reliability and health risks associated with the minimization alternatives over utilization alternatives. There were also no significant differences between the present worth costs of ash reduction alternatives and total incineration except in the case of heat drying where the costs were significantly higher.

In the case of the Seneca facility there were significant differences in the costs between existing incineration and ash reduction alternatives. This is due to the fact that the Seneca facility does not have energy recovery facilities. Based on preliminary estimates in-vessel composting was 30 percent less expensive than the existing incineration alternative. The present worth cost of incinerating and landfilling the ash was approximately \$22 million versus the cost of composting at approximately \$15.5 million. The cost of composting also includes a capital expenditure of over \$11 million.

FINDINGS AND CONCLUSIONS

For the purpose of this report the potentially hazardous materials in the sludge and ash have been defined as: nickel, chromium, cadmium, zinc, copper, mercury, lead and PCB's. There are a number of activities currently ongoing which are addressing the reduction of these materials. First, the MWCC has an Industrial Pretreatment program which requires all industries to comply with local and federal pretreatment requirements as they relate to the above metals. A central metal recovery facility has been proposed which will help a number of industries achieve compliance with the MWCC rules. This facility will be operational by late 1987. Second, there is a program to eliminate combined sewer overflows which will reduce the amounts of metals that go to the treatment plants. This program will take up to ten years to complete. With these programs instituted the concentrations of these metals in the sludge and ash will be reduced from 10 to 60 percent depending on the metals of concern.

Currently the concentrations of these metals in the sludge or ash are not considered a problem. With the programs as outlined above the concentrations of these metals will be reduced even more making the sludge and ash more amenable to recycling or disposal. The concentrations of these metals should be monitored to make sure they do not cause a problem in the future.

There are a number of ways to treat the sewage and sludge for metal removal once the metals get into the waste. However, these measures are very costly and produce a sludge which is a hazardous waste which must be disposed of. It is more cost-effective to treat the source of the waste than to allow these materials to get into the waste. The MWCC also has a monitoring program which will be able to determine if these metals are causing problems in the sludge, on the treatment process or in the water quality. If problems are identified corrective measures can be instituted to require stricter pretreatment of industrial waste or additional treatment at the facility. Also if any substantial increase in the amounts of these metals are detected the MWCC should ascertain the reasons for these increases and take appropriate corrective measures. The Council should be kept apprised of the status of industrial pretreatment program and the levels of metals in the sludge and ash.

The MWCC should continue its industrial pretreatment program and enforce its rules as it relates to compliance with heavy metal discharges to the sewer system. The MWCC should also continue to identify fugitive industries, such as industries that do not report metal loading to the MWCC, that are not complying with its rules.

It appears that the Twin Cities area is closer to implementing a large scale co-composting project based on on-going research than it was two years ago when the Council originally examined this issue.

The MWCC is conducting the most research anywhere in this country or abroad on ash utilization. A number of alternatives to a MWCC owned landfill were examined. These alternatives included ash utilization and ash reduction alternatives along with landfilling of ash in non-MWCC owned landfill facilities. In regard to ash utilization alternatives versus ash landfilling the costs were essentially the same. The environmental impacts were generally the same. The main differences were regarding the reliability and the implementability of the alternatives. The preferred alternatives were the recovery of metals from the ash and the disposal of ash in private landfills. Regarding the ash reduction

alternatives there were very little differences except in the case of sludge disposal at the Seneca plant. At the Seneca plant it was determined to be feasible and prudent to discontinue sludge incineration and to either compost or land apply the sludge.

Landfilling with all of its inherent problems is still the only alternative that has been utilized over a number of years and will continue to be used, although to a lesser extent, for the foreseeable future. However, there are a number of promising alternatives to landfilling which could be implemented on a full scale. Use of ash in asphalt is the most promising of these alternatives, if Mn/DOT would agree to use the ash in state road projects. Until any of the alternatives have been demonstrated for a number of years they cannot be considered entirely reliable. Legislative amendments would be necessary if landfilling in a private landfill is as a desired alternative.

Composting of sludge is a proven technology. However, additional research on end uses and markets should be completed before this option can be fully considered for large scale operation.

Three questions were posed by the WMA which the Council needs to answer regarding alternatives to ash disposal:

1) Are there feasible and prudent alternatives to ash disposal?

The answer is yes. The MWCC has signed a contract with a Nevada mining firm to haul out all of the existing ash to South Dakota and recover the metals contained in the ash once a permit is issued by South Dakota. If this proposal is implemented then the MWCC has about ten years of storage in its existing basins. This 10-year period will allow the MWCC enough time to implement several of the most promising utilization alternatives and prove the technology over a long period of time; thereby proving the feasibility and prudence of the alternatives. Each year the MWCC should reduce its ash disposal requirements by 10 percent so that in 10 years no ash disposal will be necessary. This goal can be reached by either utilization of the ash or by minimization of the ash produced.

2) Is ash disposal in landfills necessary?

No. The MWCC does not need to site a separate landfill for the disposal of its ash. It has at least ten years of temporary storage available in its existing basins and considerably more when several of the utilization measures are implemented.

If for some reason the existing ash storage basins cannot be used and the 10 years of storage is not available it would then be appropriate to seek legislative relief from the prohibition against using private landfills as a backup to any utilization proposal at that time.

It should be remembered that landfilling in state-of-the-art landfills is a feasible and prudent alternative for ash disposal. Until such a time as the ash utilization alternatives being developed become "state-of-the-practice" and not "state-of-the-art" some form of landfilling or long term storage using a proven technology must be provided. This capacity is proposed to be provided by the ten years of temporary storage that will be provided when the ash basins are cleaned out.

The MWCC should undertake a study of the sludge management alternatives for the Seneca plant. Based on the preliminary findings of this report it appears that either land application or composting of sludge would be more cost effective than continuing to incinerate the sludge.

- 3) Are there permitted management methods other than land disposal which will accomodate all of the Commission's sludge without the need for a new landfill?

The answer is again yes. Both the hauling of ash to South Dakota and the utilization of ash in asphalt is permitted. It is anticipated that several other alternatives could also become permitted over the next several years to allow the discontinuance of the Council's landfill siting process.

Regarding the question of whether there are feasible and prudent methods to reduce the hazardous materials in the waste; the answer is yes. These programs are currently being carried out by the MWCC, St. Paul, Minneapolis and South St. Paul.

Regarding the question of whether it is necessary to dispose of waste with concentrations of hazardous materials; the answer is no. There are alternative methods of utilization which are available which makes the need for landfilling these materials unnecessary.

Need to incinerate only 65% of available
Sludge to run Metro Plant processes, leaving
35% available for other uses.

RELATED ISSUES

Based on a number of findings from this study the Council needs to amend its Water Resources Management Development Guide/Policy Plan. Regarding the Seneca Plant the MWCC needs to undertake a detailed study examining the entire sludge management needs of the facility. Based on the preliminary assessment it appears to be more cost effective to discontinue the incineration of sludge and to either land apply or to compost the sludge.

In regards to the Metro Plant the limited amount of storage that will be available after the basins are emptied will necessitate that a program be phased in that will not allow any ash disposal in ten years. The Council should amend its policy plan setting goals that the MWCC should meet on an annual basis by either utilization of the ash or by not producing a like amount of ash. This goal should start at 10 percent and increase 10 percent a year so that in ten years 100 percent can be utilized or abated.

The Council should continue to include in its policy plan a directive to the MWCC to implement its Industrial pretreatment program in accordance with state and federal rules.

Finally, the Council should recommend as part of its Policy Plan that the MWCC look at creating a separate department to deal with all aspects of sludge and ash disposal from planning to design and implementation. For the ash utilization program to be a success it is felt that one person or department should have complete control over all aspects of this venture.

BIBLIOGRAPHY

Incinerator Ash Alternative Use Study for the Metropolitan Council, Black and Veatch, July 1986.

Potential for Large-Scale Sewage Sludge Composting and Co-Composting in the Metropolitan Area, Metropolitan Council, March 1984.

Hazardous Materials in Sewage Sludge and Ash, Metropolitan Council, October 1986.

jflcon

HAZARDOUS MATERIALS
IN
SEWAGE SLUDGE AND ASH

BACKGROUND

The Metropolitan Council, pursuant to the Waste Management Act of 1980, as amended, is preparing a certificate of need study for the disposal of sludge ash. Minn. Stat. 473.153, subd. 6b, states:

The disposal of sludge ash generated by the Metropolitan Waste Control Commission (MWCC) is not permitted in the Metropolitan Area without a certification of need issued by the Council indicating the Council's determination:

- (a) that the disposal of waste with concentrations of hazardous materials is necessary; and
- (b) that ash disposal is necessary.

The Council shall certify need only to the extent that there are no feasible and prudent methods of reducing the concentrations of hazardous materials in the waste and no feasible and prudent alternatives to ash disposal, including large-scale composting and co-composting of sludge, which would minimize adverse impact upon natural resources. Methods and alternatives that are speculative or conjectural shall not be deemed feasible and prudent. Economic considerations alone shall not justify the certification of need or the rejection of methods or alternatives, including large-scale composting and co-composting of sludge as an alternative to incineration. In its certification the Council shall not consider alternatives which have been eliminated from consideration by the selection of sites pursuant to subdivision 2.

In order for the Council to adequately address item (a), above, it is necessary for the Council to define what is meant by concentrations of hazardous materials. Minnesota Rules, Section 7045.0131, defines "hazardous waste": "In general, a waste is not excluded from regulation as a hazardous waste under part 7045.0120 is a hazardous waste if it exhibits ignitability, corrosivity, toxicity, extraction procedure (EP) toxicity, or is an oxidizer, as described in subparts 2 to 7." In addition, the state rules list several hundred chemical compounds which, if present, would qualify the waste as hazardous. The rules also list various industrial processes, the by-products of which constitute a hazardous waste.

Pursuant to the Federal Clean Water Act, the U.S. Environmental Protection Agency (EPA) has identified 65 categories of pollutants containing 126 priority pollutants (see Table 1). While standards for all of these pollutants have not been developed, they are monitored in both the effluent and in the sludge on a periodic basis. MWCC permits require that certain metals are to be monitored from a number of the MWCC's treatment facilities on a regular basis to determine compliance with the state water quality standards.

The MWCC, as part of its Waste Discharge Rules, regulates what can be disposed of in its system via a permit to each industrial source in the metropolitan disposal system. The MWCC prohibits the discharge of any combustible, flammable or explosive solid, liquid or gas into its system. In addition, the MWCC also prohibits the discharge of any waste containing concentrations in excess of a certain amount for the following substances: cadmium, total chromium, copper, total cyanide, lead, mercury, nickel and zinc. Finally, the MWCC

Table 1
EPA PRIORITY POLLUTANT LIST

1. acenaphthene	64. butyl benzyl phthalate
2. acrolein	65. di-n-butyl phthalate
3. acrylonitrile	66. di-n-octyl phthalate
4. benzene	67. diethyl phthalate
5. benzidine	68. dimethyl phthalate
6. carbon tetrachloride	69. benzo (a) anthracene (1,2-benzanthracene)
7. chlorobenzene	70. benzo (a) pyrene (3,4-benzopyrene)
8. 1,2,4-trichlorobenzene	71. 3,4-benzofluoranthene
9. hexachlorobenzene	72. benzo (k) fluoranthene (11, 12-benzofluoranthene)
10. 1,2-dichloroethane	73. chrysene
11. 1,1,1-trichloroethane	74. acenaphthylene
12. hexachloroethane	75. anthracene
13. 1,1-dichloroethane	76. benzo (ghi) perylene (1, 12-benzoperylene)
14. 1,1,2-trichloroethane	77. fluorene
15. 1,1,2,2-tetrachloroethane	78. phenanthrene
16. chloroethane	79. dibenzo (a,h) anthracene (1,2,5,6-dibenzanthracene)
17. bis (2-chloroethyl) ether	80. indeno (1,2,3-cd) pyrene (2,3-o-phenylenepylene)
18. 2-chloroethyl vinyl ether (mixed)	81. pyrene
19. 2-chloronaphthalene	82. tetrachloroethylene
20. 2,4,6-trichlorophenol	83. toluene
21. parachlorometa cresol	84. trichloroethylene
22. chloroform (trichloromethane)	85. vinyl chloride (chloroethylene)
23. 2-chlorophenol	86. aldrin
24. 1,2-dichlorobenzene	87. dieldrin
25. 1,3-dichlorobenzene	88. chlordane (technical mixture & metabolites)
26. 1,4-dichlorobenzene	89. 4, 4'-DDT
27. 3,3-dichlorobenzidine	90. 4, 4'-DDE (p, p'-DDX)
28. 1,1-dichloroethylene	91. 4, 4'-DDD (p, p'-TDE)
29. 1,2-trans-dichloroethylene	92. Alpha-endosulfan
30. 2,4-dichlorophenol	93. Beta-endosulfan
31. 1,2-dichloropropane	94. endosulfan sulfate
32. 1,3-dichloropropylene (trans 1,3-dichloropropene)	95. endrin
33. 2,4-dimethylphenol	96. endrin aldehyde
34. 2,4-dinitrotoluene	97. heptachlor
35. 2,6-dinitrotoluene	98. heptachlor epoxide
36. 1,2-diphenylhydrazine	99. Alpha-BHC
37. ethylbenzene	100. Beta-BHC
38. fluoranthene	101. Gamma-BHC (lindane)
39. 4-chlorophenyl phenyl ether	102. Delta-BHC
40. 4-bromophenyl phenyl ether	103. PCB-1242 (Arochlor 1242)
41. bis (2-chloroisopropyl) ether	104. PCB-1254 (Arochlor 1254)
42. bis (2-chloroethoxy) methane	105. PCB-1221 (Arochlor 1221)
43. methylene chloride (dichloromethane)	106. PCB-1232 (Arochlor 1232)
44. methyl chloride (chloromethane)	107. PCB-1248 (Arochlor 1248)
45. methyl bromide (bromomethane)	108. PCB-1260 (Arochlor 1260)
46. bromoform (tribromomethane)	109. PCB-1016 (Arochlor 1016)
47. dichlorobromomethane	110. toxaphene
48. chlorodibromomethane	111. antimony (total)
49. hexachlorobutadiene	112. arsenic (total)
50. hexachlorocyclopentadiene	113. asbestos (fibrous)
51. isophorone	114. beryllium (total)
52. naphthalene	115. cadmium (total)
53. nitrobenzene	116. chromium (total)
54. nitrophenol	117. copper (total)
55. 4-nitrophenol	118. cyanide (total)
56. 2,4-dinitrophenol	119. lead (total)
57. 4,6-dinitro-o-cresol	120. mercury (total)
58. N-nitrosodimethylamine	121. nickel (total)
59. N-nitrosodiphenylamine	122. selenium (total)
60. N-nitrosodi-n-propylamine	123. silver (total)
61. pentachlorophenol	124. thallium (total)
62. phenol	125. zinc (total)
63. bis (2-ethylhexyl) phthalate	126. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)

requires all industrial dischargers to comply with the federal pretreatment standards which are established on a category by category basis based on the best available technology for a particular industrial group.

ANALYSIS

As can be seen, there are a number of different ways in which the legislative intent of the above language can be viewed. It is therefore necessary to ascertain what the legislature meant when this law was passed.

In adopting Minn. Stat. 473.153, subd. 6b, the legislature evidenced a concern that sludge ash contained certain materials with troublesome characteristics but which did not rise to level of a hazardous waste. This conclusion is based on the fact that the legislation refers to "hazardous materials" (and not "hazardous waste") and on the fact that MWCC sludge ash, if it did qualify as hazardous waste, would be governed by a separate set of statutes and rules respecting the generation, handling, storage and disposal of hazardous waste. Accordingly, the legislation seems directed to the analysis of whether the land disposal of sludge ash which is less hazardous than "hazardous waste" is necessary.

The legislation's directive that the Council analyze the necessity for disposal of sludge ash with hazardous materials evidences a concern with respect to the ability of the MWCC to remove or reduce any or all of such hazardous materials. Presumably, the necessity for such disposal is reduced to the extent that there are feasible and prudent methods available to remove or reduce such materials from the sludge ash prior to disposal. Accordingly, the focus of the certificate of need study will be on the possibilities for removing or reducing "hazardous materials," however defined, from sludge ash.

The next issues are identifying the materials which the Council should analyze with respect to their reasonable or feasible removal or reduction from the sludge ash and the extent to which the Council should analyze their removal/reduction. Theoretically, this analysis could occur with respect to almost every ash constituent, as there is almost no constituent which, if present in sufficient quantity, could pose some public health concern. Accordingly, one reasonable way of establishing a floor to the removability/reduction issue would be to identify the levels of the constituents which do not pose a public health concern, as determined by some other standard. For example, drinking water standards permit the presence at defined levels of certain substances which, if present at higher levels, cause public health concerns. As another example, sludge landspreading rules permit the landspreading of sludge with defined levels of certain substances which, if present at higher levels, cause public health concerns.

If ash contains materials which are regulated with respect to drinking water standards, but at levels which would not produce violations of drinking water standards, it seems appropriate that such materials not be deemed "hazardous materials" within the meaning of 473.153, subd. 6b.

Because soil and groundwater contamination are the environmental concerns which support state regulation of sludge landspreading, the constituents common both to sludge and sludge ash are a likely focus for the analysis of MWCC capability for constituent removal/reduction from sludge ash. In addition, materials for which a significant national, state or regional data base exists seem likely targets for the certificate of need study.

Accordingly, the Council will analyze the feasibility of removing/reducing from sludge ash those ash constituents which are subject to state sludge landspreading rules and drinking water rules, which are present at levels which would produce violations of drinking water standards, and for which a significant national or state or regional data base exists. These constituents are cadmium, lead, zinc, copper, nickel, chromium, mercury and PCB. While arsenic, barium, fluoride, selenium and silver are regulated under drinking water standards, they are present in ash at levels which do not produce drinking water standard violations.

In addition to PCB, other organic compounds are of concern in sludge landspreading or composting. However, in the incineration process these organics are burned and do not appear in the ash. As indicated in Table 1, there are over 100 organic compounds which are of concern and are monitored on a regular basis by the MWCC. However, for the purpose of this report, these compounds will not be classified as a hazardous material unless their concentrations, based on monitoring results, indicate that they need to be controlled.

SOURCES OF HAZARDOUS MATERIALS

When one thinks about the eight pollutants listed above, one would normally think these are all by-products of industries. If we could get the industry to clean up its waste stream, we could then solve the problems with these metals and be able to dispose of the sludge or ash with no threat to the environment. However, it has been learned that while industry is the major source of some of these pollutants, it is not the only source. A study done in Pittsburgh found that for cadmium, industrial sources contributed 46 percent of the waste, while the background level in the water supply contributed 42 percent. Other sources of cadmium were urban runoff, waste oil, domestic sewage and infiltration.

As in the case of cadmium, a large percentage of other metal also comes from nonindustrial sources. Later in this report the amount of industrial contribution will be discussed.

In addition to the standard sources of these pollutants, industrial, commercial and residential wastes, the MWCC accepts wastes from a number of other sources which contribute pollutants to the disposal system. Some of these nonconventional sources include accepting 1) septic tank waste and other transported wastes; 2) leachate from sanitary landfills; 3) contaminated water from hazardous waste cleanup sites; and 4) runoff into combined sewers.

The MWCC has recently begun analyzing the quality of the septage that is being discharged into its sewer system as part of its industrial monitoring program. The MWCC has found that the septage quality for normal domestic waste varies widely. The table below indicates the range for septage from both domestic and industrial sources that has been disposed in the metropolitan sewage system:

Table 2
METAL CONCENTRATIONS IN SEPTAGE

PARAMETER	METROPOLITAN AREA		INDUSTRIAL	UNITED STATES
	DOMESTIC		RANGE	AVERAGE
	RANGE			
Copper (mg/l)	0.13 - 24.9		0.02 - 762	8.27
Nickel (mg/l)	0.04 - 1.4		0.04 - 30.3	0.75
Lead (mg/l)	0.05 - 17.5		0.05 - 532	5.2
Zinc (mg/l)	0.26 - 79.9		0.31 - 1150	27.4
Cadmium (mg/l)	0.007 - 0.3		0.008 - 7.0	0.27
Chromium (mg/l)	0.04 - 4.3		0.05 - 48.2	0.92

Based on the sampling that has been accomplished, the septage appears to fall within the averages for septage from around the United States. If more septage is discharged into the MWCC's sewer system, the amounts of metals contributed from these sources will increase.

As part of the Council's work on nonpoint pollution, storm water runoff quality was measured. The table below lists the mean concentrations for various metals found in the runoff.

Table 3
CONCENTRATIONS OF VARIOUS METALS IN STORM WATER RUNOFF
(mg/l)

	Lead	Zinc	Copper	Cadmium	Chromium	Nickel
Cottage Grove	0.422	0.055	0.0147	0.0037	0.0125	0.0128
Eden Prairie	0.180	0.135	0.027	0.0013	0.031	0.030
Golden Valley	0.212	0.123	0.035	0.004	0.025	0.025

As can be seen, some of the concentrations are high but all are less than normal domestic sewage. However, during storm events the volume of storm water runoff is extremely high and can contribute substantial pounds of pollutants to the sewer system in combined sewer areas. Most of the first flush effects containing higher concentrations of these metals are captured and conveyed to the treatment plant. The quantities of these metals getting to the treatment plant are dependent on the amount of snowmelt and the amount, duration and intensity of rainfall events, as well as whether the flow must be bypassed. These metals come from air pollution particulate matter which settles out of the air, from litter accumulated on the streets, traffic, and from man-made and natural chemicals which are applied to the soil.

In 1980 the EPA completed a study of normal household waste and the amounts of these metals contained in the waste, as well as the source of these pollutants. The following listing gives the uses and sources of these metals:

- | | |
|---|---|
| 1) Cadmium
aluminum soldering, manufacture
of plastics, fungicide, photography | solder, lawn treatment,
luminescent materials,
photo chemicals, textile
printing, batteries,
paint, pigments |
| 2) Chromium
various metallic applications | abrasives, tanning, water
repellent textiles, photo
chemicals, pigments,
paints, wood preserva-
tives, textile printing |
| 3) Copper
plumbing, electrical | fungicides, pigments,
varnish, paint, textile
preservatives, wood
preservatives, photo
chemicals |
| 4) Lead
electrical, plumbing | batteries, pigments,
paints, glaze, matches,
plastic stabilizers |
| 5) Nickel
alloys, plating, catalysts,
ceramics, textiles | coins, jewelry, zippers,
plumbing, corrosion,
dyes, coverings, pig-
ments, skin treatment,
diuretics, vegetable
fungicide, crab grass
control, ointments,
photographic |
| 6) Mercury
agriculture, amalgamation, catalysts,
dental, paint products, pharmaceuticals,
electrical laboratory, paper manufacture | weed killers, insecti-
cides, rodenticides,
batteries, antiseptic,
textile preservatives,
paint |
| 7) Zinc
galvanizing, ceramics, medicines,
rayon textiles, vulcanized rubber | luminescent material,
pigments, ointments,
rubber compounds, wood
preservatives, deodorant,
disinfectants, paint |
| 8) PCB
electrical, automotive, asphalt,
inks, plastics | miscellaneous electrical |

Clearly the use of these metals is ubiquitous and it would be difficult to get along without them. The hope is that everyone will dispose of the chemicals in a safe manner and not wantonly dump them down the drain and cause problems for the treatment plant. The table below lists the average metal loadings associated with normal domestic sewage tributary to the Metro Plant. The high levels for copper and zinc are due to corrosion of copper and galvanized pipes used in buildings.

Table 4
NORMAL DOMESTIC SEWAGE METAL CONTRIBUTION

	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
Metro (lbs./day)	12	50	200	100	60	400
Five-City Average* (lbs./day/10 ⁶ people)	6	25	104	48	29	199
Average Domestic Concentration (mg/l)	0.007	0.03	0.13	0.06	0.03	0.24

*MWCC Report on the Evaluation of Heavy Metal Loadings at the Metro Plant, Table 5. 1979.

In 1981 the MWCC adopted its Waste Discharge Rules which set limits for industrial users of the system. These rules were developed as part of the federally mandated pretreatment program, and enforcement of these rules is required as a condition of the MWCC's National Pollutant Discharge Elimination System (NPDES) permits. Compliance with these rules is enforceable by the EPA against both the MWCC and the discharger if there are violations. The MWCC limits the amounts of metals which can be discharged into its sewer system. The categorical standards for new and existing industrial dischargers are based on either the best available technology economically achievable or the best available demonstrated technology economically achievable. These categorical standards are then uniformly applied throughout the country and the region so no one area has an advantage over another area because of these treatment requirements. Table 5 lists the 25 industrial categories which are regulated by EPA. Table 6 lists the local limitations on dischargers for pollutants which are not covered by the categorical standards.

Table 5
INDUSTRIAL CATEGORIES TO BE REGULATED BY EPA'S PRETREATMENT PROGRAM

Iron and Steel Manufacturing
 Petroleum Refining
 Timber Products Processing
 Steam Electric Power Plants
 Leather Tanning and Finishing
 Nonferrous Metals Manufacturing
 Ore Mining and Dressing
 Coal Mining
 Organic Chemicals and Plastics and Synthetic Fibers
 Inorganic Chemicals Manufacturing
 Textile Mills
 Plastics Molding and Forming
 Pulp and Paper Mills
 Rubber Processing
 Metal Molding and Casting
 Pesticides
 Pharmaceuticals
 Electroplating
 Metal Finishing
 Electrical and Electronic Components
 Copper and Copper Alloy Products
 Battery Manufacturing
 Coil Coating
 Porcelain Enameling
 Aluminum Forming

Table 6
MWCC INDUSTRIAL PRETREATMENT LIMITATIONS

<u>Pollutant</u>	<u>Limitation</u>
Cadmium	2.0 mg/l
Chromium Total	8.0 mg/l
Copper	6.0 mg/l
Lead	4.0 mg/l
Mercury	0.1 mg/l
Nickel	6.0 mg/l
Zinc	8.0 mg/l

However, as pretreatment standards are promulgated by the EPA, industrial users are subject to the limitations contained in the categorical pretreatment standards. Industries must comply with both EPA categorical standards or the MWCC pretreatment standards, whichever are more stringent. When the EPA promulgated the national pretreatment standards, it had the expressed stated objectives:

- 1) To prevent the introduction of pollutants into treatment works which would interfere with the operation of the treatment facility, including the interference with its use or disposal of municipal sludge,

- 2) To prevent the introduction of pollutants into the treatment works which would pass through the treatment works or otherwise be incompatible with such works, and
- 3) To improve opportunities to recycle and reclaim municipal and industrial wastewater and sludges.

Currently, the majority of industries have already complied with all the MWCC pretreatment requirements. Some metal finishing industries have not complied as they are relying on the central metal recovery facility to provide their industrial pretreatment, but they are on a compliance schedule which will bring them into compliance before the end of 1987.

The MWCC's industrial pretreatment program has already had a significant impact on improving the quality of the Metro Plant effluent and the quality of its sludge, as well as other outlying plants. Table 7 presents the influent quality for the Metro Plant. Table 8 presents the sludge quality for the Metro Plant from two different dewatering devices, the plate and frame presses and the roll presses. As one can see from examining Tables 7 and 8, the major reduction in influent concentration and sludge quality occurred in 1979-80 with virtually no changes in metal quality since 1980. However, it is expected that when all industrial dischargers meet pretreatment requirements, the amounts of the metals discharged to the system will be even further reduced.

Table 7
METRO PLANT
INFLUENT METAL CONCENTRATIONS
(mg/l)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium	Mercury
1979-80*	0.305	0.243	0.166	0.530	0.091	0.379	0.005
1982**	0.200	--	0.070	0.340	0.014	0.230	0.0005
1983	0.200	--	0.070	0.360	0.015	0.180	0.0005
1984	0.220	0.120	0.060	0.400	0.014	0.170	0.0007
1985***	0.190	0.110	0.056	0.350	0.011	0.133	0.0004
% Reduction 1979-1985	38	55	66	34	88	65	92

*MWCC Removal Credit Data

**MWCC Annual Treatment Plan Reports

***MWCC 1985 Pretreatment Report

Table 8
METRO PLANT*
SLUDGE CHARACTERISTICS--CONCENTRATIONS OF METALS
(mg/kg Dry Solids)

Year	Sludge Source	Copper	Nickel	Lead	Zinc	Cadmium	Chromium	Mercury	PCB
1980	Press Cake	1,550	295	536	3,070	121	1,780	1.8	
1981	Press Cake	1,699	311	511	3,223	132	1,878	3.0	3.15
1982	Press Cake	1,580	220	410	2,750	90	1,770	2.4	1.8
	Roll Cake	730	110	200	1,150	26	800	1.8	0.5
1983	Press Cake	1,740	250	380	2,560	112	1,600	2.4	1.7
	Roll Cake	990	160	270	1,550	40	930	2.2	0.9
1984	Press Cake	1,720	220	390	2,680	110	1,660	2.0	2.2
	Roll Cake	1,220	210	300	2,020	67	920	1.7	0.8
1985	Press Cake	1,770	210	400	3,000	133	1,360	--	--
	Roll Cake	1,160	180	270	1,800	70	780	2.5	1.4

*MWCC Annual Sludge Report

SENECA PLANT
SLUDGE CHARACTERISTICS
BELT FILTER PRESS
(mg/kg)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium	Mercury	PCB
1984	1,663	50	354	1,034	20	167	3.0	1.2
1985	1,445	92	297	679	13	286	2.2	1.44

*Annual Treatment Plant Report

VARIABILITY OF QUALITY

As was indicated above, the quality of the sludge and influent are affected by many different sources of pollution. Table 9 shows the variability among the MWCC'S treatment plants for 1979 and 1980. This variability is due to the amount of industries which are tributary to these plants. However, it should also be noted that the amounts of metals even at the facilities which handle primarily domestic waste with little or no industrial contribution still have metals in the plant influent.

Table 9
AVERAGE METAL CONCENTRATIONS IN INFLUENT AT VARIOUS PLANTS*
1979-1980 (mg/l)

Treatment Plants	Copper	Nickel	Lead	Zinc	Cadmium	Chromium	Mercury
Anoka	0.185	0.123	0.083	0.220	0.010	0.268	0.003
Bayport	0.082	0.004	0.073	0.300	0.010	0.024	0.003
Blue Lake	0.762	0.071	0.107	0.450	0.010	0.198	0.004
Chaska	0.063	0.020	0.031	0.220	0.010	0.038	0.002
Cottage Grove	0.059	0.035	0.037	0.140	0.008	0.013	0.002
Hastings	0.611	0.022	0.099	0.350	0.008	4.855	0.001
Rosemount	0.097	0.023	--	0.270	0.012	0.094	0.006
Savage	0.093	0.012	0.063	0.070	0.010	0.194	0.008
Seneca	0.361	0.025	0.083	0.270	0.015	0.544	0.002
Empire	0.113	0.005	0.048	0.260	0.014	0.011	0.001
Stillwater	0.053	0.008	0.032	0.170	0.011	0.015	0.003
Metro	0.305	0.243	0.166	0.530	0.091	0.379	0.005

*MWCC Removal Credit Report Data

Table 10 shows the year-to-year variability for two treatment plants, Cottage Grove, with little industrial contribution, and Hastings, which has major industrial contributions. As can be seen, the treatment plant with negligible industrial loadings does not vary much with time and the impacts of industrial pretreatment. However, the facility with major industrial contributions does show a reduction in the amount of metals tributary to the plant over time.

Table 10
SLUDGE DATA (MEAN) (mg/kg)
HASTINGS TREATMENT PLANT

	Cadmium	Chromium	Copper	Lead	Nickel	PCB	Zinc	Mercury
1974/75*	9.0	6,810	1,288	339	14	--	1,226	--
1978*	6.0	10,954	1,960	231	25	1.7	804	--
1981**	4.7	15,653	1,955	340	32	--	990	2.3
1982	4.7	18,454	1,803	257	31	0.4	857	2.4
1983	9.8	5,782	1,171	178	34	0.8	747	2.5
1984	5.0	3,317	1,100	178	28	1.1	739	3.4
1985	6.8	2,796	466	106	22	.86	1,682	2.1

*Industrial Toxic Pollutant Study, HDR, April 1980.

**MWCC Annual treatment Plan Reports

COTTAGE GROVE TREATMENT PLANT

	Cadmium	Chromium	Copper	Lead	Nickel	PCB	Zinc	Mercury
1974/75	9.0	30	315	166	17	--	1,105	--
1978	16.0	82	374	211	50	2.1	959	--
1981	8.1	69	556	207	86	--	1,071	4.9
1982	8.8	53	492	183	106	0.3	1,098	3.9
1983	13.2	37	465	172	97	0.6	1,092	5.4
1984	7.4	33	471	153	71	1.1	1,011	4.3
1985	7.1	36	505	148	75	0.9	973	5.6

Another important factor which must be considered in determining the amount of metals which can be reduced at any given treatment plant is the industrial contribution to the total metal loading at the facility. Table 11 shows the industrial contribution at the Metro Plant for 1977 and 1985. As can be seen, the amounts of the various metals have gone down in total and from the amount contributed by industries. The industrial contribution for each metal is different depending on the amounts contributed from nonindustrial sources which has not been controlled.

Table 11
METRO PLANT
METAL LOADINGS AND INDUSTRIAL CONTRIBUTION 1977*
(lbs./day)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium
Influent	675	350	350	1,100	150	1,025
Industrial	125	150	210	320	100	450
% Industrial	19	44	59	29	67	44

*MWCC Report of the Evaluation of Heavy Metal Loadings at the Metro Plant, 1979.

METRO PLANT
METAL LOADINGS AND INDUSTRIAL CONTRIBUTION 1985
(lbs./day)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium
Average Influent (1985) (lbs./day)	350	200	100	650	20	250
Accountable Ind. Loading	209	100	27	257	10	185
% Industrial*	60	50	27	40	50	74

*MWCC Technical Data Report 4/85, Industrial Waste Section.

All of the MWCC treatment plants produce sludge which must be managed. However, only the Metro and Seneca treatment facilities incinerate the sludge and produce an ash which then must be managed. The quality of the ash and the disposal techniques are different for ash than for sludge. The ash concentrates most of the metals that were in the sludge in the ash since little of the metals in the sludge are volatilized and given off with the incineration of gases. Only in the last two years has there been a need to determine the quantity and quality of the ash. Table 12 lists the quality of both the Seneca and Metro ash.

Table 12
METRO PLANT
ASH CHARACTERISTICS
(mg/kg)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium
1984*	3,540	409	1,300	6,000	106	2,660
1985**	3,700	440	820	5,000	69	1,650

*Table V in Sludge Ash Characteristics Report

**MWCC 1/14/86 memo

SENECA PLANT
ASH CHARACTERISTICS
AVERAGE 1984
(mg/kg)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium
1984	4,880	280	710	1,960	15	780

*MWCC 1/14/86 memo from Jim Corcoran; ash generated in muffle furnaces at 550° C.

LEACHATE ANALYSIS

In most instances, the amount of metals in the sludge or ash is not relevant to its impact on the environment. The only case where total mass loading would be significant is if the material were ingested directly by either human or animal. Under various conditions, for example, by maintaining proper soil pH for sludge land applications or by not landfilling the ash below the groundwater table, very little of the metals in the sludge or ash will leach into the surrounding environment. In other cases where the environment is acidic (corrosive), the metals will readily leach out of the sludge and ash. There are a number of tests that have been developed that measure the amount of leachate from a normal environment and from an acidic environment. The MWCC has conducted these tests and the data is presented in Tables 13 and 14. The MPCA has also established limits on acceptable concentrations of the leachate based on these standard tests for codisposal in sanitary landfills. Normally, MPCA standards are defined as 10 times greater than the Safe Drinking Water Standards as established by the EPA and in state statutes. The MPCA believes these limits as established are safe both to the aquatic and terrestrial environment, as well as to humans.

Table 13
METRO PLANT
ASH LEACHATE DATA
ASTM WATER LEACH TEST
(mg/l)

ASTM Water Leach Test

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium	Mercury	PCB
2/84	< 0.01	< 0.05	< 0.1	< 0.01	< 0.01	< 0.02	< 0.0005	< 0.002
11/84*	0.02	< 0.06	< 0.1	< 0.02	< 0.01	< 0.02	< 0.0005	< 0.004
April and May 1985**	0.02	0.04	< 0.08	0.01	< 0.01	< 0.03	< 0.002	< 0.005
Jan. thru May 1986	0.047	0.002	0.001	0.011	< 0.01	0.03	< 0.0002	---

MPCA Limits for Codisposal (ASTM Water Leach Test)

10	1.0	0.5	50	0.1	0.5	0.02	0.01
----	-----	-----	----	-----	-----	------	------

Table 14
METRO PLANT
ASH LEACHATE DATA
EXTRACTION PROCEDURE (EP) TOXICITY TEST

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium	Mercury	PCB
5/83-2/84*	--	--	0.084	--	0.12	0.01	0.0002	--
11-12/84*	2.7	0.6	< 0.1	3.3	0.38	< 0.01	< 0.0005	< 0.001

*Metro Plant Ash Characteristics Report

**MWCC Comparison of Ash and Soil Leach Characteristics

Based on MPCA criteria for ash disposal, the ash would not constitute a problem if landfilled based on current standards and the quality of the ash. For sludge land application, the MPCA has set annual and cumulative loading limits for various metals which must be adhered to for proper utilization of the sludge. These limits have not hampered the sludge land application program.

COMPARATIVE ANALYSIS

How do these values listed previously compare with other metropolitan areas around the country? In some cases, the quality of sludge ash from MWCC treatment plants is better. However, it is usually in the middle--it is not the best or not the worst by far. Table 15 lists the concentrations of heavy metals in ash from several cities around the United States.

Table 15
AVERAGE HEAVY METAL CONCENTRATIONS OF SLUDGE ASH
FROM VARIOUS U.S. CITIES
(mg/kg)

	Copper	Nickel	Lead	Zinc	Cadmium	Chromium
Minneapolis/St. Paul	2,200	900	810	3,000	34	2,400
Albany, NY	470	56	320	1,700	9	120
Atlanta	880	250	1,800	5,000	26	1,800
Cleveland	430	140	160	960	6	210
Detroit	1,500	1,300	1,500	4,200	40	2,300
Palo Alto, CA	7,300	1,500	1,500	3,800	59	1,500
St. Louis	1,600	460	1,700	8,000	43	1,700
San Mateo, CA	1,000	130	550	2,000	6	320
Savannah, GA	540	76	450	2,300	7	380

*Metro Plant Ash Characterization, September 1984, Appendix F.

Last year the MWCC compared its sludge ash with normal soils found throughout the Metropolitan Area based on the amounts of metals found in normal leachate tests. Rural soils as well as urban soils were analyzed for the amounts of metals that would leach. Figure 1 shows the comparison between ash and these various soils. As can be seen, ash is no worse than a number of different soils, and both the ash and the soils are usually orders of magnitude less than the allowable limits established by the MPCA for codisposal in sanitary landfills.

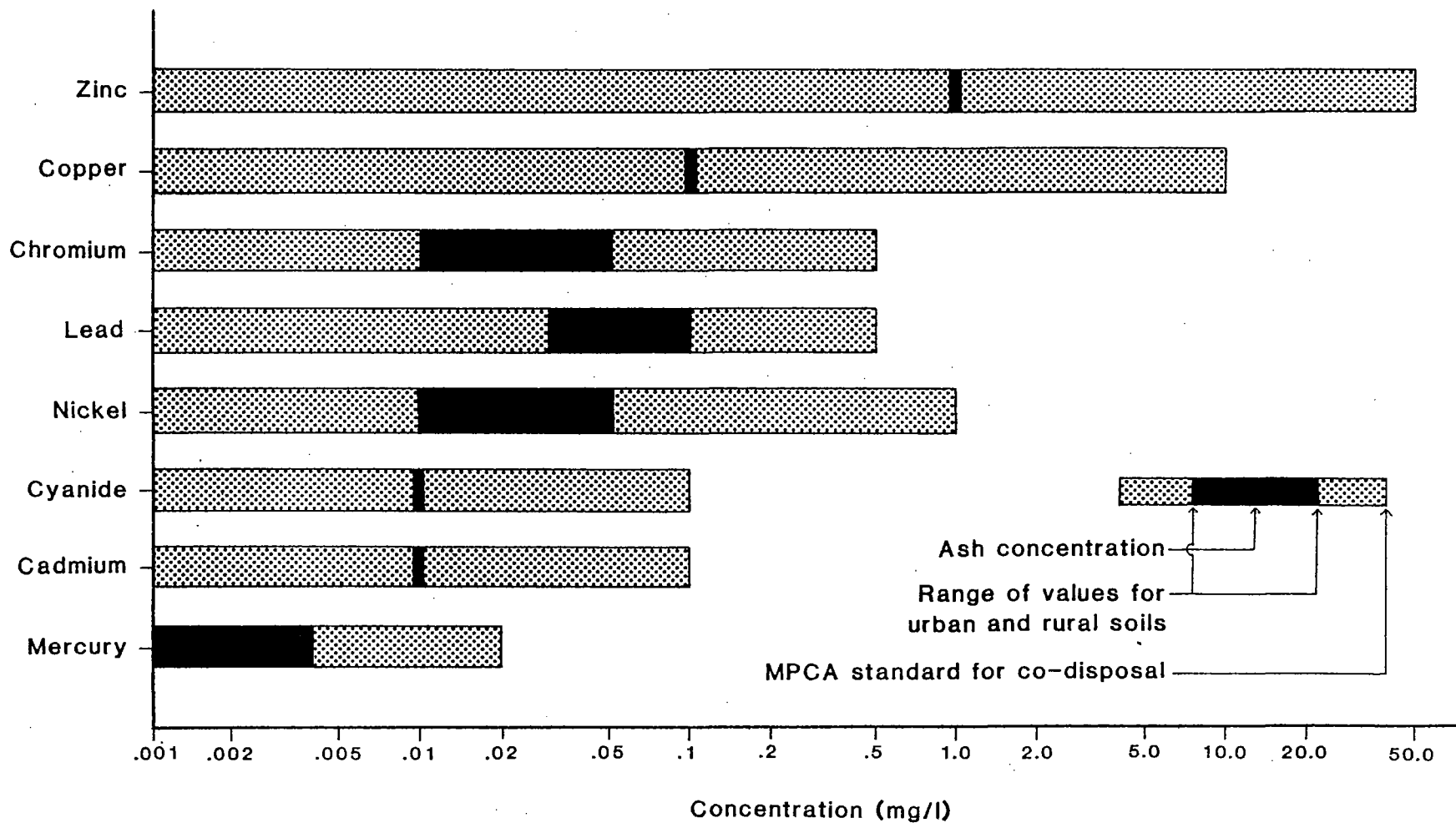
MITIGATION

As was indicated previously, these eight metals of concern come from a number a different sources. There are two means of controlling these metals: the first way is control at the source and the second is controlling at the treatment plant. EPA, in promulgating the industrial pretreatment regulations, determined that it was more cost effective to control industrial waste at its source than allowing it to contaminate the overall treatment facility wastewater or its sludge. This has placed the burden on the industries to clean up their waste before discharging to the municipal treatment system.

Once these metals are in the metropolitan treatment facilities, there are several ways in which they can be removed. The first method is a physical process of settling the influent solids which contain a portion of the metals. This removes some of the metals and concentrates the metals in the sludges that are produced. The second process is a biological one where bacteria present in the sewage treatment process utilizes some of the metals present for their

Figure 1

ASTM WATER LEACH TEST RESULTS FOR VARIOUS METALS



growth and reproduction. These bacteria then settle and again the metals accumulate in the sludge. These processes are part of normal secondary sewage treatment which is required of all the plants in the Metro system. The effluent when discharged to the area rivers will have less metals than when it comes to the treatment plant.

These metals of concern, in small concentrations, are essential to bacterial growth. However, at large concentrations they can be lethal. Therefore, it is essential that the pretreatment program control these metals so they do not exceed the concentrations which would then interfere with the biological treatment process.

Once the metals are in the sludges, they are more difficult to remove. Several processes have been demonstrated that can remove these metals, but they are very costly and the residual sludge produced must be disposed of, probably, in a hazardous waste facility. One of these processes is known as a "hot acid treatment"; it effectively solubilizes 50 to 90 percent of the selected heavy metals. Based on pilot plant studies, it has been determined that it would cost \$140 per ton to treat the sludge. For the Metro Plant, which produces approximately 60,000 dry tons of sludge a year, the cost would be an additional \$8.4 million annually. One of the major drawbacks of this process is the poor dewaterability of the sludge and the loss of nutrients from the sludge.

Another process to remove metals is ion exchange. However, it cannot be done on the residual solids but must be done on the entire wastewater stream. This is even a more costly measure when one considers that the influent flow to the Metro Plant averages 220 million gallons per day (MGD) with peak flows over 600 MGD.

However, the question that needs to be asked is why do we want to remove the metals from the wastewater or the sludge. Currently, the MWCC is meeting all appropriate water quality standards as it relates to metal loadings. In addition, no disposal options for sludge management have been precluded because of the quality of the sludge, but increased long-term usage on a single field would be possible if the metal concentrations were reduced. However, the EPA is currently revising its sludge landspreading regulations, and the limitations for cadmium application to land may be reduced. If the loading rate for cadmium is reduced significantly over what is currently adopted, this may cause a problem at the Metro Plant for the land disposal option. While the environmental acceptability of the sludge would improve with more of the metals removed, the current quality is environmentally acceptable. Therefore, is it necessary to install major new treatment units which would be both costly to build and operate to remove additional heavy metals when they are not causing an environmental problem? It is agreed that a reduction in the heavy metals, while not causing an environmental problem, will be a benefit to the environment although not quantifiable. Therefore, it is appropriate to institute various alternative measures that are not as costly as treatment to remove heavy metals to improve the quality of the wastewater and the sludge.

These measures include a strict industrial pretreatment program by the MWCC which issues permits to industries and ensures compliance with the permits. Attached is a brief description of the MWCC's industrial pretreatment program which outlines the various activities of this program. As was indicated previously, there are approximately 28 metal finishing industries which have not complied with the MWCC's pretreatment program and are relying on the central metal recovery facility for treatment of the metal finishing wastes.

While this facility has had a number of setbacks, it now appears that it will be operational by late 1987. This should help reduce, substantially in some cases, the metals that are entering the metropolitan disposal system. The table below indicates the approximate reduction from 1985 levels which will be accomplished by the central recovery facility for each of the metals of concern.

Table 16
ANTICIPATED REDUCTION IN METALS DUE TO THE CENTRAL METAL RECOVERY FACILITY

	Reduction for Participating Industries	Overall Percent Reduction
Cadmium	0%	0%
Chromium	78	33
Copper	89	60
Lead	30	11
Nickel	74	30
Zinc	88	57

As can be seen, the metal recovery plant could significantly reduce the overall loadings in both the copper and zinc, and to a lesser but still appreciable extent chromium, lead and nickel.

Another process that will aid in the reduction of metals is the combined sewer overflow (CSO) elimination program. In 1985 the legislature passed a funding program for the elimination of combined sewer overflows from Minneapolis, St. Paul and South St. Paul over the next 10 years. This program will eliminate storm water runoff coming to the Metro Plant and divert this water to the river. The runoff contains many of the metals of concern. It is very difficult to quantify the reduction in metal concentrations in sludge due to CSO elimination because the quantity of the metals in the runoff is dependent on rainfall intensity and frequency, which is highly variable from year to year. However, along with household waste this segment makes up a considerable portion of the metals going to the treatment plant each year. In fact, it is about equal to or greater than in the case of several of the metals coming from industrial sources.

Cadmium from tires, lead from gasoline

Another method of reduction would be an education program geared to the domestic users. Since a certain amount of metals is coming from normal domestic sewage due to ignorance on proper disposal methods, an education program geared to proper use and disposal of products containing these metals may have a beneficial impact on the amount of metals coming to the treatment facilities. This program should start with programs in schools to educate the youth on proper disposal practices. In addition, informative brochures coupled with newspaper stories explaining the problem and what can be done to reduce the metals that are discharged into the sewage system should be developed. This program should be coupled with an education program regarding proper disposal of solid waste products so they do not contaminate landfills. If it is determined that these metals need to be reduced then the program described above should be implemented and it should be a joint MWCC and Metropolitan Council program.

As discussed in the attached industrial pretreatment program (Appendix 1), a number of special studies aimed at identifying fugitive industries and compliance with the MWCC's permits are being conducted. These programs should be continued and adequately staffed to detect noncomplying industries and ensure compliance.

The final method for reducing metal loadings to the treatment plants is to institute stricter industrial pretreatment rules. Unless it can be shown that a particular metal is causing a problem, like cadmium if the land application rules change, it would be a strong disincentive for an industry to expand or to locate in the Twin Cities if they had to meet higher pretreatment standards than elsewhere in the state or the country. However, under the current pretreatment rules, the MWCC does have the authority to tighten its numerical standards or to institute new standards that may be appropriate.

CONCLUSIONS

The Waste Management Act provides that the Council address the hazardous materials contained in the MWCC's sludge ash and determine whether the disposal of ash including such constituents is necessary. For purposes of the certificate of need, hazardous material is defined as a material which is regulated pursuant to drinking water and sludge landspreading rules, which is presently at a level which would create a drinking water standard violation, and for which a significant national, state or regional data base exists. These materials are cadmium, chromium, lead, nickel, copper, zinc, PCB and mercury.

These materials come from a number of sources including normal domestic household waste, industrial waste, storm water runoff, and a number of other small sources including hazardous waste cleanup sites, septage haulers and landfill leachate. There are two methods of controlling these pollutants: one is at the source and the other is at the treatment facility. In most cases it is cost-effective to control the pollutants at the source and not let it contaminate the sewage or the sludge at the treatment facility.

As these heavy metals move through the treatment process, some are discharged in the effluent to the river and the remainder is concentrated in the sludge. When the sludge is burned, some of the metals will be removed in the exhaust gases and the remainder is further concentrated in the ash.

Several methods are available to control the pollutants that enter the sewer system. These methods include a vigorous industrial pretreatment program, an education program geared to the residential component, elimination of the combined sewer discharges, the construction of the central metal recovery facility, stricter industrial pretreatment standards and additional treatment processes.

Currently, there is no environmental problem with either the quality of the MWCC's sludge or ash, and the level of these various pollutants does not prohibit any alternatives for disposal. However, with improved qualities, the useful life of land application sites will be extended and the allowable sludge loading rates may increase if any of the heavy metals is a limiting factor for land application. There are a number of programs in various stages of implementation which will significantly improve the quality of both the sludge and ash over the next 10 years with significant improvements occurring within two years when the central metal recovery facility is completed.

Since the late 1970s, the amounts of heavy metals being discharged into the metro system has been drastically reduced. These reductions are due to an active industrial pretreatment program which was initiated by the MWCC.

APPENDIX 1

MWCC Industrial Waste Division

I. Introduction

- A. General - The purpose of this document is to present a description of the MWCC Industrial Waste Division, with the emphasis being on the activities being conducted at the current time (1985, 1986 and projected 1987).

Within the MWCC Structure, the Industrial Waste Division is a part of the Quality Control Department. For budget purposes, the Industrial Waste Division is designated Program 012 (Industrial Wastes).

- B. Mission Statement - The mission of the Industrial Waste Division is to control industrial users of the MDS through the permitting, monitoring and enforcement functions so that the protection of MWCC operations and personnel, community sewer systems, the public and the environment is insured; respond as necessary to discharge-related problems; and carry out regulatory requirements and other program activities.
- C. History - MWCC control of industrial waste discharged into the Metropolitan Disposal System (MDS) began in 1971 with the adoption of the "Sewage and Waste Control Rules and Regulations for the Metropolitan Disposal System". Although these rules and regulations were fairly comprehensive in addressing industrial waste discharge matters, many sections were never fully implemented. Also, enforcement actions were very limited, usually occurring only as a response to serious problems with individual industrial users. These shortcomings were mainly due to lack of staff, and other MWCC priorities, during the early and middle 1970's. Nonetheless, a number of activities were undertaken: an industrial waste/user inventory was conducted, a registration and self monitoring/reporting system was instituted, an industrial waste data base was formed, and a field monitoring crew was established. In 1977, the Strength Charge System was implemented to meet federal and state requirements for a proportionate user charge system.

The Federal Water Pollution Control Act (PL 92-500) of 1972 was the origin for much of the state and federal involvement in water pollution control and wastewater treatment which exists today. Amendments to this act comprised the Clean Water Act of 1977 (PL 95-217). The Clean Water Act set the stage for federal, state and local regulation of the discharge of industrial wastewater into Publicly Owned Treatment Works (POTW's). The main mechanism used to initiate and achieve this control of industrial users of POTWs was the General Pretreatment Regulations (40 CFR Part 403). These regulations, which were issued in early 1978 (with later revisions), included requirements for POTW Pretreatment Program development and provided the framework for National Pretreatment Standards.

Because of these federal requirements, the MWCC Industrial Waste Control Program (the federally required "pretreatment program") was developed, beginning in 1979. Submitted to the MPCA and EPA in late 1980, it contained required information and described the necessary procedures to be used to implement and enforce both federal standards/requirements, and local limitations, on industrial users of the MDS. In early 1981, the Waste Discharge Rules for the Metropolitan Disposal System were adopted. These revised rules established the Industrial Discharge Permit as the industrial user control mechanism. Also included were revised "Local Limitations", "Prohibited Waste Discharges", and various enforcement and administrative procedures. The issuance of Industrial Discharge Permits was begun in 1982. The implementation and enforcement of EPA Categorical Pretreatment Standards, as well as the provisions of the Waste Discharge Rules for the MDS, were also initiated, and these are major Industrial Waste Division activities today. The field monitoring activities have also expanded, so that compliance with discharge standards can be determined, and discharge strength levels can be verified. Additional field activities involve responding to MWCC treatment plant and interceptor system problems that are due to industrial wastes, investigating community sewer system problems, and responding to spills and other releases that may threaten MWCC or community sewer systems/facilities.

II. MWCC Industrial Waste Control Program

- A. Purpose and Description - The principal objectives of the Clean Water Act with regard to the discharge of industrial wastewater into POTWs are: to prevent interferences from pollutants which might decrease the operating efficiency of a POTW; to minimize the amount of toxic pollutants which might pass through a POTW and enter a receiving water; and to avoid limitations on the utilization or recycling of wastewater sludges due to toxic pollutants. The General Pretreatment Regulations were set forth to achieve these goals, and included National Pretreatment Standards and requirements for POTW pretreatment program development. During program development, the POTW must identify and characterize all industrial users, establish local regulations and limitations, document all field and administrative procedures, insure that there exists adequate legal authority and funding to carry out the program, and develop methods to implement National Pretreatment Standards, inspect and monitor industrial users, and enforce the local and national regulations.

The MWCC Industrial Waste Control Program, as mentioned, was developed to address POTW pretreatment program requirements. The principal subjects addressed or presented in the program document were objectives and organization, the industrial waste survey, data management procedures, Industrial Discharge Permit issuance, MWCC Spills Response Program, enforcement procedures, staffing/budget/equipment projections, and supplemental material.

Since the MWCC program was developed rather early in comparison to other major POTWs nationwide, very little guidance was available. Nonetheless, the program document attempted to adequately address and describe the required pretreatment program elements.

- B. Program Approval - The MWCC pretreatment program was submitted to the MPCA and EPA for approval on December 30, 1980. The program submittal was the subject of MPCA/EPA scrutiny for almost two years. During this period, the MWCC negotiated with these agencies in an attempt to modify the program and/or set forth approval conditions that would fulfill the necessary legal requirements, and satisfy the concerns of the parties involved. In addition, the MWCC adopted the Waste Discharge Rules for the MDS, and began the issuance of Industrial Discharge Permits. This was done both as a practical necessity, and in anticipation of eventual program approval. On December 22, 1982, the MWCC Industrial Waste Control Program was approved. There were, however, nine additional tasks or submittals that were required as approval conditions. Major tasks required by these approval conditions included the preparation of a comprehensive procedures manual, the conducting of priority pollutant monitoring of influent, effluent and sludge at the four largest MWCC wastewater treatment plants, and the preparation of a technical data report to discuss the monitoring results and support/justify the local limitations which were established in the Waste Discharge Rules. As of January 30, 1985, all of the required reports and tasks had been submitted to the MPCA. It is therefore the MWCC's view that all of the approval conditions have been fulfilled.
- C. Implementation and Current Status - The MWCC has had ongoing industrial waste control activities since the early 1970's, even before the Clean Water Act was passed. Because of this, the Industrial Waste Division was not starting up from "scratch" when the Industrial Waste Control Program was approved in 1982. Rather, many of the required activities were integrated into the existing procedures and activities that were in use. Some activities did require increases in staff and new procedures/methods, but these changes were accomplished gradually. Key activities that are conducted as a result of the MWCC Industrial Waste Control Program include implementation and enforcement EPA Categorical Pretreatment Standards, the issuance and administration of Industrial Discharge Permits, increased field monitoring activities, partial implementation of the MWCC Spills Response Program, an ongoing special project to locate all significant industrial users, and the preparation/submittal of annual pretreatment reports to the MPCA. These activities, as well as the other major activities of the Industrial Waste Division, will be presented further in subsequent chapters of this document.

The MPCA is the pretreatment program approval authority in Minnesota. As such, the MPCA must insure that the MWCC program is being properly carried out. The mechanism used are the requirements contained in Part III, "Pretreatment Requirements" of all MWCC NPDES Permits.

These requirements spell out the actions the Industrial Waste Division must take to remain in compliance with the conditions of the approved pretreatment program. In addition, reporting requirements are included which specify the contents of the annual pretreatment report which must be submitted to the MPCA.

Another activity that the MPCA conducts is that of auditing POTW pretreatment programs. A three day audit of the MWCC Industrial Waste Division procedures was conducted by MWCC and EPA personnel during the November 25-27, 1985 period. The final audit report was received on March 31, 1986. In general, the MPCA/EPA findings were that the MWCC is doing a good overall job of controlling industrial users and insuring compliance with standards. There were a number of items listed, however, the the Industrial Waste Division is required to improve upon or change. Many of these involve permit administration details and other procedural matters. During 1986, the matters in question will be addressed and/or modified by the Industrial Waste Division staff.

III. Organization and Staff

- A. Management - Prior to 1986, Donald R. Madore was the Program Manager for the Industrial Waste Division. He also held the position of Deputy Director of Quality Control, which involved a variety of duties associated with the management of the MWCC Quality Control Department.

In early 1984, Leo H. Hermes was designated the Industrial Waste Assistant Manager. Although his main prior duties had involved the field monitoring activities of the Industrial Waste Division, additional overall program responsibilities were gradually added at this time.

Mr. Madore became the Director of Quality Control in late 1985, leaving vacant the program manager position for the Industrial Waste Division. In early 1986, Leo Hermes was promoted to the position of Industrial Waste Manager, and he currently manages the activities of the Industrial Waste Division. Overall departmental management support is provided by D.R. Madore (Director of Quality Control and H.A. Boyer (Deputy Director of Quality Control)). In addition, Mr. Madore provides input and guidance on some Industrial Waste Division projects and activities.

- B. Staff and Organization - For 1986, the Industrial Waste Division staff consists of 19 full time positions at two locations. The Permit and Enforcement Section (5 Staff Engineers) and Data Base and Special Projects Section (1 Environmental Scientist and 1 Administrative Assistant) are located at the MWCC Central office. Support at that location is provided by one of the Quality Control Department Secretaries. The Monitoring and Field Enforcement Section (3 Staff Engineers, 7 Industrial Waste Technicians, and 1 Secretary) is located at the Metropolitan Wastewater Treatment Plant. The Industrial Waste Manager is also currently located at the Metro Plant.

The Industrial Waste Division 1986 Organization Chart is presented as Figure 1. It depicts the three functional "sections" that comprise the Industrial Waste Division, and shows the staff involved in each section. A short listing of job duties/functions is included for each section, and for the program management function as well. The chart also shows that additional support is provided to the Industrial Waste Division by the MWCC legal counsel, the Office of Health & Safety, and the Office of Public & Community Relations.

Planning for 1987 Industrial Waste Division activities has been underway for some time. In order to increase the field monitoring activities, and insure adequate permit administration and enforcement functions are carried out, three new staff positions have been proposed. The 1987 Industrial Waste Division Organization Chart, including the three proposed new staff, is presented as Figure 2. This chart depicts four sections within the Industrial Waste Division (rather than three as shown for the 1986 chart). This change is being made to more accurately depict the functions of the staff involved, and to emphasize certain functions, e.g., enforcement.

The total budget for the Industrial Waste Division for 1986 is \$818,777.00. The proposed budget for the Industrial Waste Division for 1987 is \$860,717.00

IV. Industrial Waste Division Activities

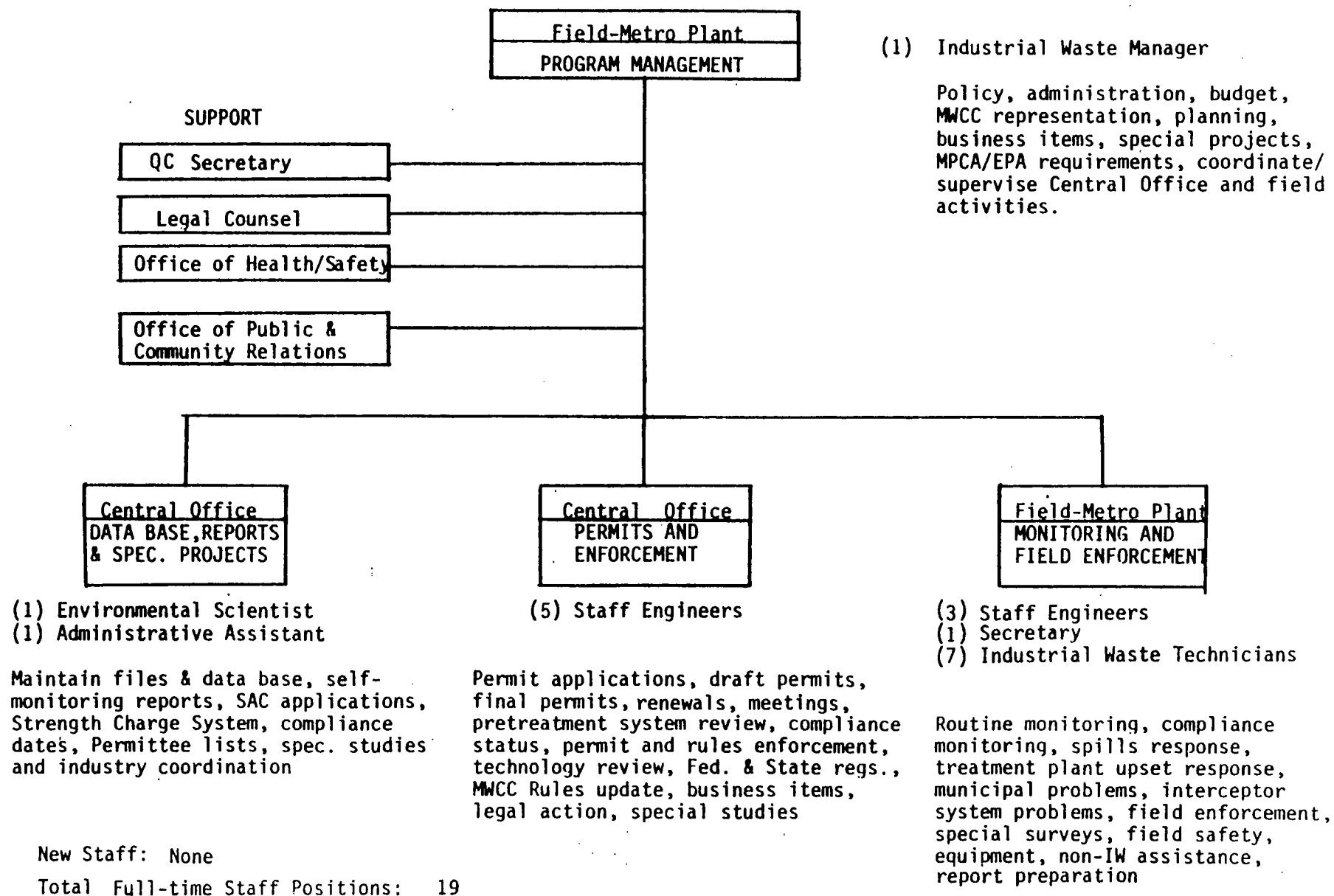
- A. Introduction - This chapter will present the current (1986) activities of the Industrial Waste Division. For each function or activity, a brief listing of the activities/tasks will be given first. Then, the quantitative magnitude or extent of this activity will be indicated where possible. This will usually involve the activity level for the year 1985, with projections being given for 1986-87. Most of the activities presented can be considered to be the functions of the "sections" shown on the organization charts. Some activities, e.g., Strength Charge Administration and Special Projects, are shown separately for added clarity or emphasis. It should be noted that many of the activities/procedures of the Industrial Waste Division are governed by the Waste Discharge Rules for the MDS and/or the Industrial Waste Division Procedures Manual. The reader of this document is referred to these two documents for additional details regarding Industrial Waste Division activities.
- B. Industrial Discharge Permit Administration - This function involves all aspects of issuing and renewing Industrial Discharge Permits (permits), evaluation of all required permittee submittals to the Industrial Waste Division, and many aspects of enforcement. Typical activities/tasks associated with this function include:
 - Permit Application review
 - issuance of draft permits, including copies to the industrial user's community (for review/comment)

1986

MWCC INDUSTRIAL WASTE SECTION

ORGANIZATION, STAFF AND FUNCTIONS

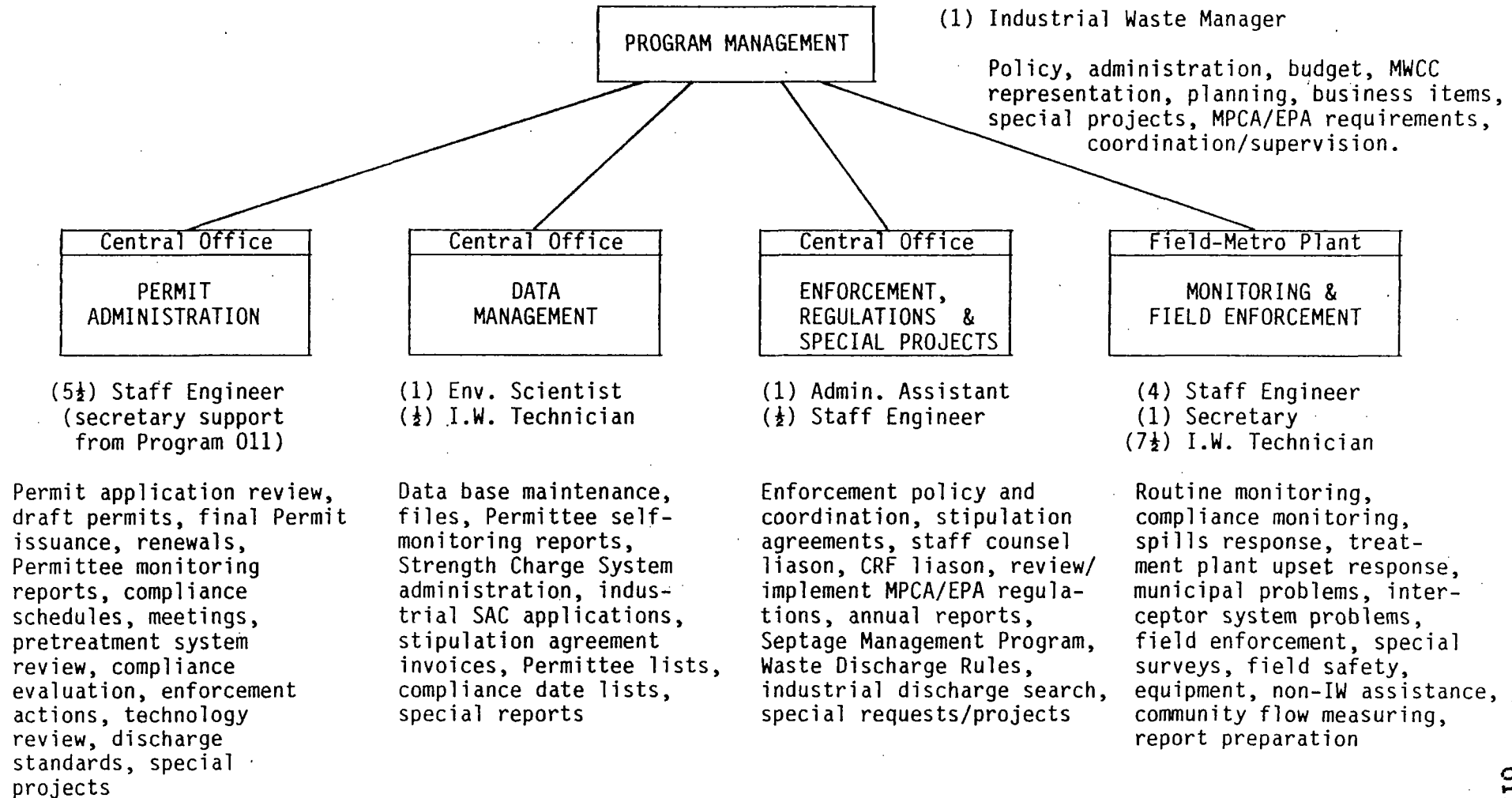
FIGURE 1



MWCC QUALITY CONTROL DEPARTMENT
INDUSTRIAL WASTE DIVISION (Program 012)

FIGURE 2

1987 Organization Chart



Proposed New Staff: Add 2 Staff Engineers and 1 I.W. Technician

Total Full-time Staff Positions: 22

- determination of applicable discharge standards/requirements
- determination of monitoring requirements and other permit conditions
- final permit preparation/issuance
- compliance schedule development
- pretreatment system plan review
- permittee meetings and inspections
- routine report review
- assist with Strength Charge evaluation/discrepancy resolution
- compliance task submittal review/followup
- issuance of Notices of Violation for non-compliance
- approval of special permittee discharge requests
- administration of Waste Transport Hauler permits (starting in 1986)
- implementation of EPA Categorical Pretreatment Standards (as necessary)

The issuance of Industrial Discharge Permits has been an ongoing activity since 1982, and many of the permits issued early on have now been renewed. Approximately 740 permits have been issued as of May 1986, and there are currently about 615 active permittees. These permittees submit routine Industrial Waste Discharge reports (routine reports) to the Industrial Waste Division on a quarterly, semi-annual or annual basis. Over 1300 of these routine reports are received annually, and each one is evaluated for completeness, Strength Charge considerations, and compliance status.

During 1986, it is anticipated that final permits will be issued to all Waste Transport Haulers, as part of the MWCC Septage Management Program. This, plus the additional permits being issued as a result of the Industrial Discharge Search project, and other special user group requirements, will likely result in about 750-800 Permittees at some future time.

- C. Enforcement - Many of the activities related to enforcement are carried out in whole or in part by the permit administration Staff Engineers. Other activities (e.g., stipulation agreement administration) are currently carried out by the Data Base and Special Projects Section of the Industrial Waste Division. Activities that are considered to be enforcement actions include:

- issuance of Late Notices for tardy routine report submittal
- issuance of Notices of Violation for non-compliance indicated by routine report data
- issuance of Notices of Violation for non-compliance detected by the Industrial Waste Division field monitoring section (new activity for 1986)
- Report and Monitoring Discrepancy notification, used mainly for Strength Charge data discrepancies
- Notice of Violation issuance for non-submittal of various reports/requirements, and for other violation of the Waste Discharge Rules and/or permit provisions
- Stipulation Agreement negotiation and administration (new activity for 1985)

Other activities that are conducted related to enforcement include EPA Categorical Pretreatment Standards implementation (issuance of baseline monitoring report requirements, interpretation of standards, permit modifications, total toxic organics standards implementation, 90 day compliance report solicitation, etc.), development of overall enforcement policy and coordination, business item preparation for matters that must be acted on by the MWCC Board, liason with Metropolitan Recovery Corp. (with regard to the proposed Central Recovery Facility), and MWCC legal counsel liason.

For 1985, 135 Notices of Violation were issued by the Industrial Waste Division. The projection for 1986 is 190, and for 1987, 240. A part of the increases projected is due to the new policy of issuing NOV's for violations detected by the Monitoring and Field Enforcement Section of the Industrial Waste Division. Also during 1985, it was determined that 79 permittees were not in compliance with EPA standards. While many of these permittees are now in compliance, stipulation agreements have been entered into with 41 permittees that still are not in compliance. This has thus far only affected permittees subject to the EPA standards for the Electroplating and Metal Finishing categories. The stipulation agreements specify a compliance schedule to be followed, and many of the permittees involved are participants in the proposed Central Recovery Facility. Penalties are included for non-compliance, and as of March 1986 over \$1.1 million in penalties has been billed (the payments began in March 1985). Although the compliance date for most of the stipulation agreements in effect now is September, 1987, it is likely that additional stipulation agreements will be necessary to insure compliance with other EPA standards, and for compliance with MWCC local limitations as well. One additional fact is that during 1985, 564 Late Notices were issued to Permittees that did not submit the required routine reports on time.

- D. Strength Charge System - The MWCC Strength Charge is a surcharge paid by industrial users that discharge above average strength wastewater (in terms of Chemical Oxygen Demand and Total Suspended Solids levels) into the MDS. The charges are based on routine report data submitted, and the overall responsibility for administration of the Strength Charge System lies with the Industrial Waste Division Data Base and Special Projects Section. As indicated earlier, the permit administration staff also have a role in carrying out this activity. The tasks and procedures involved include:

- routine report review (for accuracy of Strength Charge parameters)
- data entry (into the Industrial Waste Division data base)
- invoice generation
- Report and Monitoring Discrepancy notification
- resolution of discrepancies and other problems
- preparation of Strength Charge bills for special discharges
- generation of a quarterly Community Strength Charge Summary
- preparation of other summaries and reports
- administration of Load Charge bills for Waste Transport Haulers, beginning in 1987

During 1985, Strength Charges were paid by 270 permittees, and the total amount billed was over \$4,696,000. For 1984, 266 permittees paid over \$4,552,000 in Strength charges to the MWCC.

- E. Data Management - As the activities, staff, and responsibilities of the Industrial Waste Division have grown in past years, the amount of data handled has steadily increased. The original data base (System 2000, on University of Minnesota Computer Center facilities) was replaced in 1983 by the Scientific Information Retrieval (SIR) data base (also on UCC facilities). Routine report data, as well as data from permit applications, final permits, Notices of Violation, MWCC field monitoring results and other special information can all be entered into the SIR data base. This data can then be manipulated in many ways, and a variety of printouts and reports can be generated.

Data management activities of the Industrial Waste Division Data Base and Special Projects Section include:

- routine report initial review and data entry
- Late Notice mailing for tardy routine reports
- generate Strength Charge invoices
- discrepancy resolution (includes Report and Monitoring Discrepancy notification)
- initial receipt/administration of permit applications
- mailing of permit renewal forms
- Notice of Violation data input
- compliance schedule tasks/dates listing
- preparation of stipulation agreement invoices
- Load Charge bills (starting in 1987)
- prepare various summary reports for annual MWCC Pretreatment Report
- initial review of Service Availability Charge applications for industrial users of the MDS
- entry/output of field data from Industrial Waste Division monitoring projects
- prepare various lists, reports, etc. as requested

- F. Field Monitoring - The inspection, monitoring, and discharge problem/response activities carried out by the Monitoring and Field Enforcement section are major activities of the Industrial Waste Division. Twelve of the nineteen Industrial Waste Division staff are located at the Metropolitan Plant facilities for 1986, and the field activities comprise most of the non-labor related budget items for Program 012. Routine activities carried out by this section involve inspecting and monitoring industrial users to verify strength parameter levels and determine compliance with the Waste Discharge Rules and EPA standards. This involves the use of sophisticated portable monitoring equipment such as automatic samplers, flow meter/printer-plotters, continuous pH recorders, portable flumes and weirs. A great deal of safety equipment is necessary, and specialized vehicles are used. Non-routine activities include investigations/responses to MWCC treatment plant upsets or unusual influents reported, spills which may harm MWCC or community facilities/personnel, MWCC interceptor system problems, and

community requests/problems related to industrial user discharges. In addition, the Monitoring and Field Enforcement Section of the Industrial Waste Division carries out a number of special projects/surveys as needed to serve MWCC and Industrial Waste Division needs (toxics monitoring, CSO sampling, etc.). Typical activities include:

- industrial user inspection
- conduct routine monitoring projects for Strength Charge and compliance verification
- unannounced inspections and/or "downstream" monitoring
- response to spills and other emergency problems
- monitoring and investigation of interceptor problems, treatment plant upsets and community sewer system problems
- preparation of Inspection Reports, Sample Reports and monthly reports to document all activities conducted
- administration/inspection/sampling related to groundwater discharge requests and hazardous waste cleanup discharge requests
- equipment investigation and procurement
- utilization of required safety equipment and procedures
- site checks at Waste Transport Hauler disposal sites
- special MWCC or Industrial Waste Division projects (including community flow measuring)
- inspections/spot checks of unpermitted industrial users to determine discharge characteristics

During 1985, over 300 inspections involving about 235 industrial users were conducted by the Industrial Waste Division. The 1986 level should be about the same, but for 1987 (with the proposed staff increases) it is projected that 275 industrial users will be inspected. The number of monitoring projects conducted during 1985 was 166 (1986 will be about the same), with 200 being the projected number for 1987. Investigations and response actions for discharge-related problems have numbered about 60 per year recently.

- G. Special Projects or Efforts - In this section of the Industrial Waste Division Activities chapter, a number of special projects or areas of effort will be described. These are mainly related to identifying and controlling industrial users, and compliance with MPCA/EPA requirements. Some of the items to be described have already been mentioned in this document; they are covered in this section to emphasize their importance and their relationship to the other special projects/efforts.

Special Projects or Efforts include the following:

1. Enforcement Activities - This area is being emphasized, and new procedures are being developed and implemented. The use of stipulation agreements to enforce EPA standards was initiated during 1985, and over 40 permittees are currently subject to stipulation agreements. During 1986-87 it is anticipated that this method of enforcement will be used to enforce additional EPA Categorical Pretreatment Standards

(other than Electroplating and Metal Finishing), and for MWCC Local Limitations as well. Another new aspect of enforcement (starting in 1986) is that Notices of Violation will be issued for non-compliance that is determined by Industrial Waste Division monitoring projects. It is felt that this policy will lead to more accurate and timely non-compliance determinations, allow for faster follow-up, and set the stage for further enforcement actions, if necessary.

2. Implementation of EPA Categorical Pretreatment Standards - Although directly related to enforcement, this activity is a special effort that should be recognized. In addition to Electroplating and Metal Finishing, there are permittees that are subject to EPA Categorical Pretreatment Standards in at least 14 other industry groups. For all of these, special information must be obtained, applicability of standards and compliance status determined, compliance schedules formulated (if necessary), and special reports received. This is an ongoing activity, and it is planned to expand these efforts during 1986-87 to insure that the EPA standards are properly addressed.
3. Industrial Discharge Search - The current phase of this project involves mailing out questionnaires to all potential industrial users identified during the field phase. From the responses received, it is determined if a permit application should be sent out to potential permittees. The applications are sent out as appropriate, and completed applications are turned over to the permit administration staff. As of late 1985, over 4000 questionnaires had been sent out, and about 600 potential permittees have been identified. It is likely, however, that only a small portion of these will be issued Industrial Discharge Permits. It is planned to complete the questionnaire mailing phase during the summer of 1986, and to proceed with the mailing of permit applications. Another major goal is to computerize all of the information received, to allow for easy access/reference.
4. MWCC Septage Management Program - Adopted in late 1985, this program is intended to control the discharge of transported septage and other commercial/industrial wastes into the MDS by Waste Transport Haulers. The key elements are permitting the Waste Transport Haulers, establishing a system of approved disposal sites, and implementation of a Load Charge. The permitting process should occur during 1986, with the Load Charge starting in 1987. Disposal sites (approved) are currently in use, although some changes may be made.
5. Groundwater/Special Discharges - A rapid increase in the number of requests to discharge contaminated groundwater (treated or untreated) and special discharges from the cleanup of hazardous waste sites has occurred. Many of these involved underground gasoline tank or pipeline leaks, and the number of these problems is expected to increase. The Industrial Waste Division approves these requests when appropriate, i.e., when no detriment to MWCC facilities/operations will occur and when the discharge quality is in compliance with the Waste Discharge Rules. A major effort is planned soon to develop an overall policy regarding these types of discharges (including landfill leachate), and to set discharge standards and limitations as well.

6. Toxic Pollutant Monitoring - This activity will increase as a result of EPA/MPCA requirements. This involves "priority pollutant" monitoring at MWCC treatment plants and interceptor system locations. Direct source (industrial user) monitoring is also anticipated to be a future activity. As a result of these studies, it may be necessary to establish additional controls on industrial users (especially for toxic organics). Toxics monitoring is planned at a number of MWCC treatment plants during the last half of 1986.
7. Special User Groups - Policies/procedures have been developed and put into use for some special user groups such as hospitals and Waste Transport Haulers. Other groups that are or will be addressed include car washes, printing shops, laboratories/clinics, water treatment plants, radiator and vehicle repair shops, etc.
8. MWCC Spills Response Program - This involves developing policies and procedures to deal with emergency spills. The goal is to protect all MWCC and user-community facilities and personnel, and also to prevent toxic releases to receiving waters and the environment. Many of the procedures are in use now, and recent activities have involved sewer map procurement, development of a community contacts list, and the preparation of a spills response manual. One consideration that has not been fully addressed is the issue of establishing an on-call system for Industrial Waste Division response personnel.
9. EPA/MPCA Audit Findings Requirements - It will be necessary during 1986-87 for the Industrial Waste Division staff to address the findings requirements that resulted from the November 1985 audit. This will not only satisfy MPCA/EPA concerns, but also may result in the development and use of more consistent permitting/monitoring/enforcement procedures.
10. Annual Pretreatment Report - This is an annual report that must be submitted to the MPCA. It describes virtually all Industrial Waste Division activities that are related to Clean Water Act provisions. The various lists, reports, and summaries contained in this report have not only helped MPCA/EPA evaluate the Industrial Waste Division activities, but also have proven to be a useful tool and reference for the Industrial Waste Division and other MWCC Staff.

V. Future Considerations

- A. General - The function of controlling the discharge of industrial wastes into POTWs has expanded greatly during the past ten years. This is true both on a nationwide scale, and for the MWCC Industrial Waste Division. Although the overall framework for this control is in place and being implemented, there are a number of areas that will most likely be emphasized by the Industrial Waste Division in upcoming years. These will be identified and briefly discussed in this chapter.

In addition to controlling industrial users discharging to POTWs, many recent regulations regarding other environmental problems have been enacted (both state and federal). These involve hazardous wastes (RCRA, CERCLA, etc.), groundwater, air emissions, and others. In some cases, activities related to these regulations, e.g., the cleanup of a hazardous waste site, can impact or be governed by a receiving POTW. This represents a new area of activity for the Industrial Waste Division - one that is occurring right now. Also, changes in existing laws (e.g., additional Clean Water Act amendments), or the enactment of new environmental laws, may affect the future activities of the Industrial Waste Division. Finally, there are other factors that can affect the Industrial Waste Division, such as the level of business/industrial activity in the Metropolitan Area, budget restraints, and policy decisions regarding the administration of the permitting/monitoring/enforcement functions.

- B. Listing of Future Areas of Emphasis and Special Projects - With the above in mind, the following list is presented. It represents probable areas of emphasis and/or special projects that the MWCC Industrial Waste Division will likely be involved in over the next few years. Many of these are underway at the current time, and it is envisioned that they will become more important as time goes on.

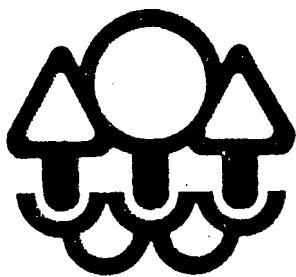
Future Areas of Emphasis and Special Projects:

1. Enforcement - As mentioned in Chapter IV, this area is receiving increased emphasis at the present time. Future activities will likely involve developing an overall enforcement policy, using stipulation agreements for additional EPA standards and for Local Limitations, and more legal actions (if necessary). Additional procedures are needed for following up on Notices of Violations that are issued, and for other non-compliance problems. Revisions to the Waste Discharge Rules may be directly related to enforcement policies and procedures. The Industrial Waste Division goal with regard to enforcement is to conduct timely, equitable and appropriate enforcement actions against violations of the Waste Discharge Rules, permit conditions, and/or EPA standards.
2. Industrial Discharge Permits - When the main work of the Industrial Discharge Search project is completed, the Industrial Waste Division will be able to issue permits to all significant industrial users of the MDS. Special user groups will also be addressed, and within the next two or three years it is hoped that all industrial users that should have permits will have them.
3. Toxic Pollutant Monitoring/Control - It is envisioned that this activity will increase greatly in the next few years. This will be due to EPA/MPCA concerns, and to verify and control compliance with EPA standards that contain standards for toxics (especially organics). The acceptance of discharges of contaminated groundwater and from hazardous waste cleanup sites will also increase the need for this type of monitoring.

An EPA study recently completed, the Domestic Sewage Study, relates to the issue of controlling toxics that are discharged into POTWs. It is likely that additional federal or local regulations regarding toxics control will result from this study. This might be in the form of Local Limitations for specific toxic organic parameters, and routine Industrial Waste Division monitoring for these constituents would then be necessary.

4. Waste Discharge Rules Revisions - It is planned to amend the MWCC Waste Discharge Rules in the near future. Changes involved may include monitoring requirements, permit fees, prohibited substances, pH limitations, enforcement procedures, late report fees, various administrative items, and the incorporation of all EPA Categorical Pretreatment Standards.
 5. Monitoring Procedures - To adequately verify discharge characteristics and compliance, routine Industrial Waste Division monitoring of permittees is necessary. This involves checking strength levels, as well as monitoring for compliance with discharge standards. To date, not all permittees have been monitored by the Industrial Waste Division, and for those that have been monitored, the return interval is very long. One possible goal is to monitor each permittee at least once during their permit duration period, i.e., once every three years. To accomplish this, some additional staff would be necessary. Policies (and implementation thereof) regarding monitoring frequency and procedures will be considered during the next one or two years. In addition, the use of "Chain of Custody" procedures will be necessary, to insure that sample results can be used in legal enforcement actions.
 6. Septage Management Program - As already explained, this program will control a significant user group that was not previously regulated by the Industrial Waste Division. These discharges can involve commercial and industrial wastes, in addition to domestic septage. Final implementation and refinement of this program will occur during 1986-87.
- C. Summary - This document has presented a comprehensive description of the MWCC Industrial Waste Division. Background and history, especially in relation to federal pretreatment program requirements, have been discussed. Virtually all Industrial Waste Division activities have been listed and described. Special projects (current), as well as future considerations, have also been addressed in this document.

It is hoped that this information has helped familiarize the reader with all aspects of the Industrial Waste Division, especially the increasing efforts to control industrial discharges and take effective and equitable enforcement actions. The goal of these efforts, as well as of the routine activities of the Industrial Waste Division, is to insure the current and future protection of MWCC and community facilities/personnel, receiving waters and the environment.



Minnesota Pollution Control Agency

November 29, 1988

Ms. Deb Baxter
Metropolitan Waste Control Commission
Room 350 Metro Square Building
7th & Robert Streets
St. Paul, Minnesota 55101

Dear Ms. Baxter:

This letter is written to document our verbal agreement regarding final disposal of dump material excavated during the installation of a Metropolitan Waste Control Commission (MWCC) sewer line. Approximately 100 cubic yards of 30 year old dump material must be moved to another location on the Pigs Eye dump site. The material was excavated from an area in the southwest corner of the site just west of the wood chipper office on city of St. Paul property. I contacted Bob Rutger on November 16 to inform him that the material would most likely be moved to a new location within city of St. Paul property. Mr. Rutger confirmed that this was acceptable to the city.

On November 17 persons from MWCC and Nova-Frost, and I inspected the site to find a suitable location for on-site disposal of the material. The location chosen was the northwest corner of the point where the main east/west access road turns north. The material will be spread in a three-foot lift (approximately) and will be covered with two feet of compacted soil. The area will also be seeded to prevent cover erosion. Nova-Frost will remove any tires encountered in the waste pile and transport them to a proper disposal facility.

Please contact me upon completion of the work at the site so that I may conduct a follow-up inspection. I can be reached at 612/296-8638 if you have further questions regarding disposal requirements. Thank you for your input during the site inspection.

Sincerely,

Jennifer J. Volkman
Pollution Control Specialist
Enforcement Unit
Solid Waste Section
Ground Water and Solid Waste Division

JJV:mbo

cc: Bob Rutger, City of St. Paul
Rebecca Flood, MWCC

Phone: _____

520 Lafayette Road, St. Paul, Minnesota 55155
Regional Offices • Duluth/Brainerd/Detroit Lakes/Marshall/Rochester
Equal Opportunity Employer

3000162



01215

ORIGINAL to Jenny Warner

Metropolitan Waste Control Commission

Mears Park Centre, 230 East Fifth Street, St. Paul, Minnesota 55101

612 222-8423

January 11, 1989

JAN 17 89

MPCA, Ground Water
& Solid Waste Div.

Mr. James Warner, Chief
Solid Waste Section
Division of Ground Water and Solid Waste
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

SUBJECT: METRO ASH LANDFILL, MPCA PERMIT NO. SW-189
GROUNDWATER MONITORING REPORT

Dear Mr. Warner:

As required under the operating conditions of Permit No. SW-189 for the MWCC Metro Ash Disposal Facility, groundwater monitoring wells are to be sampled and the results submitted to your Agency. Results of analyses for the Fall, 1988 are enclosed on your Standardized Lab Report.

If you have any questions regarding this report, please contact Ms. Rebecca Flood at 229-2073.

Sincerely,

Donald R. Madore
Director of Quality Control

DRM:RJF:jl

Enclosure

cc: J. Almo
R. Arbour

50 years

1938-1988



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road North
St. Paul, Minnesota 55155
612/296-8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART ONE B - NON-SPECIFIC

(Please See Instructions on Back)

MPCA Permit Number SW-189		Date Samples Collected (YR/MO/DY) 88 / 10 / 20, 25	
Facility Name MWCC Metro Ash Disposal Facility		Date Analysis Completed (YR/MO/DY) 88 / 11 / 2	
Collector Signature <i>[Signature]</i>	Representing MWCC		
Collector Comments Metals filtered and preserved in the field.			
Laboratory Name MWCC Central Laboratory		Phone 772-7110	
Laboratory Comments			

Laboratory Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	Sample Appearance, Odor, etc.	MPCA- Assigned Monitoring Point Number	Date Collected (yr, mo, dy)	Static Water Level Before Sampling 72019 (ft)	Field Water Temperature °C 00010	Field Specific Conductance, umhos/cm (corrected to 25°C) 00094	Field pH 00400
a. 375-55	Well 1	Lt.grn, gas bbls, pgnt odor	60124	88/10/20	17.50	13.4	6350	6.47
b. 375-55	Well 2	Lt.grn, fuel oil odor	60220	88/10/25	14.30	13.4	5540	6.67
c. 375-55	Well 3	Lt.grn, pungent odor	60324	88/10/20	14.40	12.7	5320	6.53
d. 375-55	Well 4	Lt.grn, pungent odor	60414	88/10/20	12.75	14.4	3250	6.54
e. 375-55	Well 5	Dirty-dark grn pgnt odor	60524	88/10/20	13.30	12.5	4590	9.96
DO NOT WRITE IN THIS SPACE 84002	Lab Specific Conductance, umhos/cm (corrected to 25°C)	Lab pH	Ammonia Nitrogen, mg/l	Chromium, Hexavalent, ug/l	Static Water Elevation Before Sampling (ft)			
a.	6154	6.7	70.0	< 50.	691.6			
b.	5518	6.9	150.0	< 50.	689.0			
c.	5179	6.7	164.0	< 50.	691.8			
d.	3076	6.7	94.0	< 50.	690.6			
e.	4502	7.0	4.0	< 50.	689.4			

01216



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155
612/296- 8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART TWO - EXTENDED LIST, INORGANICS
(Must be Accompanied by Completed PART ONE Report).

(Please See Instructions on Back)

MPCA Permit Number	SW-189	Date Samples Collected (YR/MO/DY)	88 / 10 / 20, 25
Facility Name	MWCC Metro Ash Disposal Facility	Date Analysis Completed (YR/MO/DY)	88 / 11 / 2
Comments			

Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	MPCA-Assigned Monitoring Point Number	Alkalinity mg/l * 00425	Dissolved Solids mg/l 70300	Suspended Solids, mg/l 00530	50.0 Arsenic Dissolved, ug/l 01000	5.0 Cadium, Dissolved, ug/l 01025	Calcium, Dissolved, mg/l 00915	120.0 Chromium, Total Dissolved, ug/l 01030
a. 375-55	Well 1	60124	1160			< 1.0	1.9		5.2
b. 375-55	Well 2	60220	1660			1.2	0.2		6.3
c. 375-55	Well 3	60324	1260			< 1.0	0.7		5.3
d. 375-55	Well 4	60414	1170			< 1.0	1.0		3.4
e. 375-55	Well 5	60524	1490			174.0	2.2		2.3
Copper, Dissolved, ug/l 01040	Lead, Dissolved, ug/l 01049	Magnesium, Dissolved, mg/l 00925	Manganese, Dissolved, ug/l 01056	Mercury, Dissolved, ug/l 71890	Potassium, Dissolved, mg/l 00935	Sodium, Dissolved, mg/l 00930	Zinc, Dissolved, ug/l 01090	DO NOT WRITE IN THIS SPACE 84002	Nickel, Dissolved, ug/l
a. < 1.0	18.9			< 0.20			60.		33.2
b. < 1.0	< 1.0			< 0.20			10.		18.2
c. < 1.0	14.9			< 0.20			50.		25.0
d. < 1.0	6.5			< 0.20			40.		11.5
e. < 1.0	34.9			< 0.20			90.		56.0

PQ-00360-01 (04/84)

* as CaCO₃

01217



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road North
St. Paul, Minnesota 55155
612/296- 8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART ONE B - NON-SPECIFIC

(Please See Instructions on Back)

MPCA Permit Number SW-189		Date Samples Collected (YR/MO/DY) 88 / 10 / 20 25	
Facility Name MWCC Metro Ash Disposal Facility		Date Analysis Completed (YR/MO/DY) 88 / 11 / 2	
Collector Signature <i>Attm</i>	Representing MWCC		
Collector Comments Metals filtered and preserved in the field.			
Laboratory Name MWCC Central Laboratory		Phone 772-7110	
Laboratory Comments			

Laboratory Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	Sample Appearance, Odor, etc.	MPCA- Assigned Monitoring Point Number	Date Collected (yr, mo, dy)	Static Water Level Before Sampling 72019	Field Water Temperature °C 00010	Field Specific Conductance, umhos/cm (corrected to 25°C) 00094	Field pH 00400
a. 375-55	Upstream	Lt.grn color, no odor	30100	88/10/20	Grab	8.5	652	7.89
b. 375-55	Downstream	Clear, grn. tinge, no odor	40100	88/10/20	Grab	6.7	700	7.81
c.								
d.								
e.								
DO NOT WRITE IN THIS SPACE 84002	Lab Specific Conductance, umhos/cm (corrected to 25°C)	Lab pH	Ammonia Nitrogen, mg/l	Chromium, Hexavalent, ug/l				
a.	647	7.8	< 0.02	< 50.				
b.	694	7.7	1.77	< 50.				
c.								
d.								
e.								

01218



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155
612/296-8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART TWO - EXTENDED LIST, INORGANICS

(Must be Accompanied by Completed PART ONE Report)

(Please See Instructions on Back)

MPCA Permit Number	SW-189	Date Samples Collected (YR/MO/DY)	88 / 10 / 20, 25
Facility Name	MWCC Metro Ash Disposal Facility	Date Analysis Completed (YR/MO/DY)	88 / 11 / 2
Comments			

Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	MPCA-Assigned Monitoring Point Number	Alkalinity mg/l * 00425	Dissolved Solids mg/l 70300	Suspended Solids, mg/l 00530	Arsenic Dissolved, ug/l 01000	Cadium, Dissolved, ug/l 01025	Calcium, Dissolved, mg/l 00915	Chromium, Total Dissolved, ug/l 01030
a. 375-55	Upstream	30100	251			< 1.0	0.2		5.2
b. 375-55	Downstream	40100	266			1.0	0.4		< 1.0
c.									
d.									
e.									
Copper, Dissolved, ug/l 01040	Lead, Dissolved, ug/l 01049	Magnesium, Dissolved, mg/l 00925	Manganese, Dissolved, ug/l 01056	Mercury, Dissolved, ug/l 71890	Potassium, Dissolved, mg/l 00935	Sodium, Dissolved, mg/l 00930	Zinc, Dissolved, ug/l 01090	DO NOT WRITE IN THIS SPACE 84002	Nickel, Dissolved, ug/l
a. 1.1	3.5			0.30			50.		4.0
b. < 1.0	5.3			< 0.20			10.		1.9
c.									
d.									
e.									

PQ-00360-01 (04/84)

* as CaCO₃

01219

B.M.	11.89	11.89		0.00
B.M.	1.96	11.82	2.03	9.86
B.M.	1.68	11.61	1.89	9.93
B.M.	1.62	11.59	1.64	9.97
B.M.	1.89	11.81	1.67	9.92
B.M.	2.25	12.10	1.96	9.85
B.M.			12.12	-0.02 (0.00)

Test Hole Elev's		F.S.	Elev.
<u>B.S.</u>	<u>H.I.</u>		
B.M.	3.66	13.63	9.97
		5.5	5.1
		7.1	6.5
		7.7	5.9
T.P.	4.96	12.18	1.41 12.22
		6.0	11.2
		11.6	5.6
		14.4	2.8
T.P.	3.32	16.24	3.76 13.42
		8.1	8.6
		16.5	0.1
		16.9	-0.2
		10.7	5.8
		9.7	7.0
		6.6	10.1

Govt B.M. 150' East of D.H. on Sewer
 Hyd. East side Pigs Eye Lake Rd.
 Hyd. East side Pigs Eye Lake Rd #2045
 Top steel H. ^{S.E. of} ~~B.M.~~ Post 12' South Westside Rd.
 Hyd. East side Pigs Eye Lake Rd #2045
 Hyd. East side Pigs Eye Lake Rd
 Govt. B.M. 150' East of D.H. on Sewer

1-4-81 Cutting O'CONNOR, Bunker

Top steel H. ^{S.E.} ~~B.M.~~ Post Westside Rd.
 T.H. #6
 T.H. #1
 T.H. #2
 T.H. #7
 T.H. #8
 T.H. #3
 T.H. #4
 T.H. #9
 T.H. #10
 T.H. #5
 T.H. #11
 T.H. #16
 T.H. #22
 T.H. #21

MWCC GROUNDWATER MONITORING

Monitoring Site: Metro Ash Disposal Area Request Number: 375
 Date: 10/20/88 Sampler Used: ISCO peristaltic pump Personnel: PC, AM
 Remarks: Cloudy, cool with east wind. All wells purged according to stabilization/recovery rate test volumes. All metals filtered and preserved in the field.

WELL NUMBER	TIME 2400	DEPTH (FEET)	TEMP °C	PHH	CND AT 25°C	OBSERVATIONS - COLOR, ODOR, PARTICULATES, ETC.
Well 5	0824 1020	13.3	12.5	9.96	4590	1 gallon removed; well went dry at 0835 Dirty Dark Green, pungent odor
Well 4	0812 1012	17.5	13.4	6.42	6350	2.1 gal removed; well went dry @ 0812 Light Green Color, Pungent odor
Well 4	0845 1050	12.75	14.4	6.54	3250	3 gal removed; well went dry @ 0856 Light Green Color, pungent odor
Well 3	1105	14.4	12.7	6.53	5320	Light Green, pungent odor
Downstream	0829	-	6.7	7.81	700	No odor, clear green tinge
Upstream	1315	-	8.5	7.89	652	No odor Light green color
Field Blank #1	0910					

SAMPLE RECEIPT

SAMPLE I.D.	RECEIVED BY	DATE	TIME	COMMENTS
Blank 1	S. L. Arthur	10/20/88	1335	SMT, SAS, CR6, SLG, 1 GAL
Well 1	S. L. Arthur	"		" " " " "
3	S. L. Arthur	"		" " " " "
4	S. L. Arthur	"		" " " " "
5	S. L. Arthur	"		" " " " "
Downstream	S. L. Arthur	"		" " " " "
Upstream	S. L. Arthur	"		" " " " "

Dist, Dist Intersection for Loc
of Test Track in Milwaukee Rd
Area for Pissy Back Operation

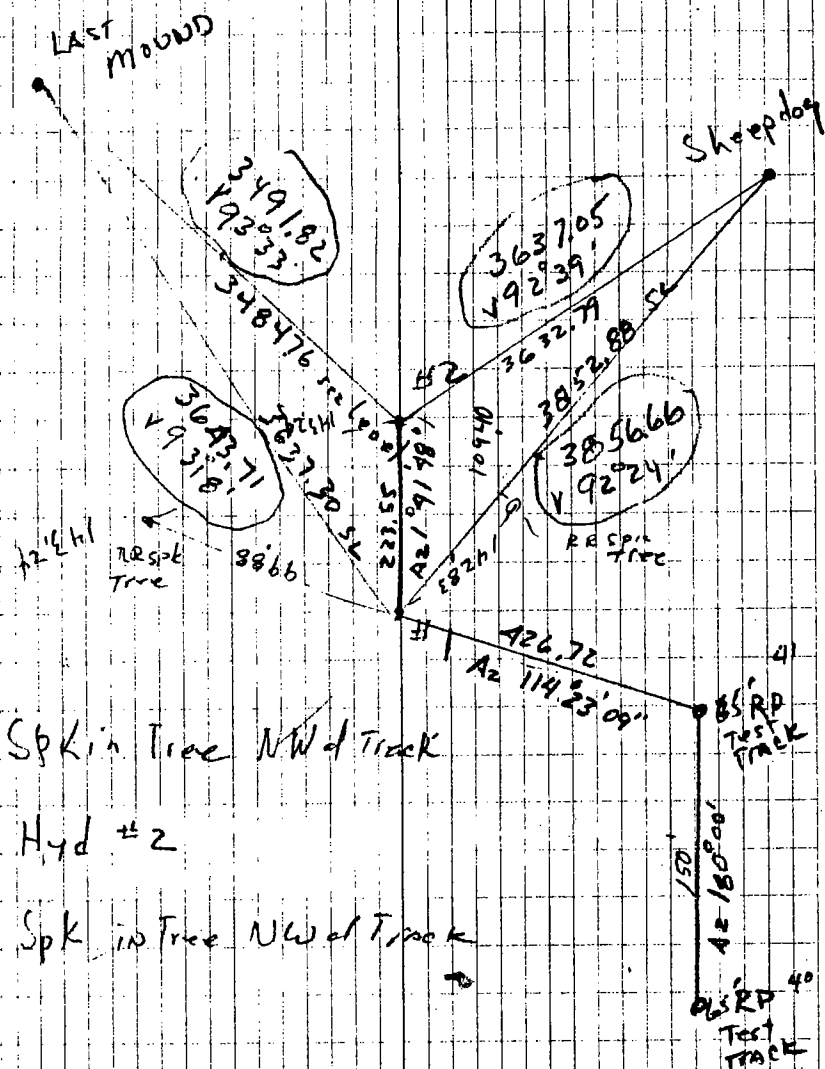
9-8-83

RLA DR.

9

Bm	3.80	103.80		100.00
TP	1.59	98.56	6.83	96.97
Control Bm	0.35	97.78	1.13	97.43
TP	6.83	102.76	1.85	95.93
Bm			2.76	100.00

Hyd To be used for check is FIRE Hyd #2
in Milwaukee yard ELEV = 97.43 on
Top of Hyd nut



T.H.
B.M.

16.78

5.1 11.7
6.95 9.83 (9.86)

T.H. #35
Hyd East Side Pigs Eye Rd

5.28 14.38

5.9 9.1
14.1 8.5
15.7 0.3
7.3 -1.3

(7.0)

T.H. #28
T.H. #23
T.H. #17
T.H. #29
T.H. #22

		16.74		
T.P	3.97	15.56	5.15	11.59
			5.2	10.74
			4.1	11.5
			4.6	11.0
T.P	5.96	18.46	3.06	12.50
			6.1	12.4
T.P	2.08	14.40	6.14	12.32
B.M			4.50	9.90
				(9.92)
T.P	5.52	17.84		12.32
			6.1	11.7
			5.4	12.4
			5.7	12.1
T.P	5.67	18.48	5.03	12.81
			8.6	9.9
			7.3	11.2
			6.7	11.8
T.P	7.68	16.28	9.88	8.60
			7.2	9.1
			5.1	11.2
			9.4	6.9
			8.4	7.9
T.P	4.80	16.94	4.14	12.14
			5.5	11.4
T.P	4.10	16.88	4.26	12.68

T.H. # 15
T.H. # 14
T.H. # 30
T.H. # 19

T.H. # 13
T.H. # 12

T.H. # 18

Hyd. East 54. - 59.

Lake Rd #204.5

T.H. # 18

T.H. # 24

T.H. # 25

Vid

T.H. # 30

T.H. # 25

T.H. # 26

T.H. # 31

T.H. # 32

T.H. # 27

T.H. # 28

T.H. # 33

T.H. # 34

T.H. # 39

T.H. # 38

T.H. # 37

T.H. # 36

Monitoring
Site: Metro Ash Disposal Area

Request Number: 375

Date: 10/25/88 Sampler Used: Isco Peristaltic Pump Personnel: FW, AM

Remarks: McTavish preserved in the field. Cloudy, cold, east wind.

Field #2	1350
----------	------

SAMPLE RECEIPT

WELL 2	S. Nathan	10/25	14 Z0	1 gallon jug, 2-250ml bottles, 1-150ml jar
Feld Blk 2	S. Nathan	10/25	"	" "

**Metropolitan Waste Control Commission**

Mears Park Centre, 230 East Fifth Street, St. Paul, Minnesota 55101

612 222-8423

January 31, 1989

RECEIVED

FEB 03 89

MPCA, Ground Water
& Solid Waste Div.

Mr. James Warner, Chief
Solid Waste Section
Division of Ground Water and Solid Waste
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

SUBJECT: Metro Ash Disposal Facility, MPCA Permit No. SW-189
1988 Annual Summary of Water Quality Monitoring

Dear Mr. Warner:

As required by Permit No. SW-189 for the MWCC Metro Ash Disposal Facility, an annual summary report of water quality monitoring is to be submitted in January of each year to your Agency. Enclosed is the annual report for 1988.

If you have any questions regarding this report, please contact Ms. Rebecca Flood at 229-2073.

Sincerely,

Donald R. Madore
Director of Quality Control

DRM:RJF:jl

Enclosure

cc: J. Almo
R. Arbour

50 years

422-1081

1988 MWCC ANNUAL SUMMARY
WATER QUALITY MONITORING OF THE
METRO ASH DISPOSAL FACILITY

MPCA PERMIT SW-189

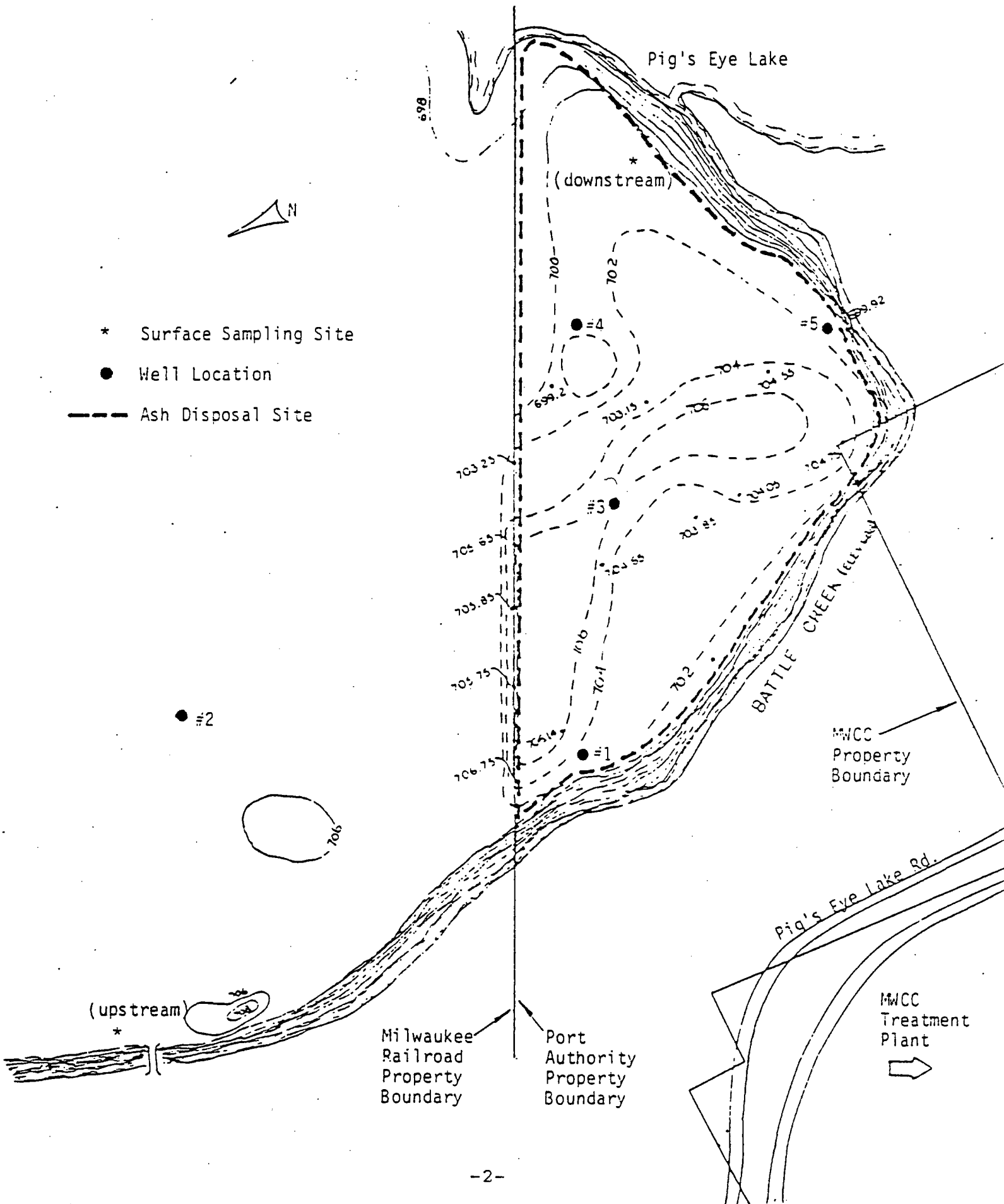
Attached is a figure depicting the location of surface and well locations sample by the Metropolitan Waste Control Commission throughout 1988, using MPCA standard field procedures. Pages 3-9 contain tables for Wells 1-5 and Battle Creek, upstream and downstream, respectively. The parameters monitored are those specified in the Permit.

The concentrations for arsenic in Well 5 exceeded the drinking water standard of 50 ug/l. All other results for which drinking water standards apply were below their respective standards.

The data are depicted graphically on pages 10-25. All sites for each parameter are grouped together for purposes of comparison. No significant water quality problems are apparent from the 1988 testing results, with the possible exception of arsenic for which careful monitoring should continue.

ETRO ASH DISPOSAL FACILITY.

01228



METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 1

SAMPLE DATE	WATER ELEVATION FEET	WATER DEPTH FEET	FIELD TEMP C	FIELD PH	LAB PH	FIELD CONDUCTIVITY U/CM	LAB CONDUCTIVITY U/CM	ALKALINITY MG/L AS CACO3	TOTAL AMMONIA NITROGEN MG/L
MAR 29, 1988	691.74	17.40	11.8	6.43	6.50	5950	6206	874	55.00
JUL 14, 1988	692.14	17.00	16.1	6.51	6.10	5750	6128	967	55.00
OCT 20, 1988	691.64	17.50	13.4	6.42	6.70	6350	6154	1160	70.00

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 1

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
MAR 29, 1988	< 1.0	1.6	2.8	2.2	8.8	< 0.2	33.2	50.	< 50.0
JUL 14, 1988	< 1.0	< 0.1	1.6	3.2	6.2	< 0.2	28.0	40.	< 50.0
OCT 20, 1988	< 1.0	1.9	5.2	< 1.0	18.9	< 0.2	33.2	60.	< 50.0

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 2

SAMPLE DATE	WATER ELEVATION FEET	WATER DEPTH FEET	FIELD TEMP C	FIELD PH	LAB PH	FIELD CONDUCTIVITY U/CM	LAB CONDUCTIVITY U/CM	ALKALINITY MG/L AS CaCO3	TOTAL AMMONIA NITROGEN MG/L
MAR 30, 1988	688.93	14.35	14.3	6.54	7.00	5720	6206	1260	150.00
JUL 14, 1988	688.98	14.30	14.9	6.72	6.60	5440	5964	1630	185.00
OCT 25, 1988	688.98	14.30	13.4	6.67	6.90	5540	5518	1660	150.00

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 2

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
MAR 30, 1988	< 1.0	< 0.1	3.5	< 1.0	8.2	< 0.2	19.2	< 5.	< 50.0
JUL 14, 1988	1.0	< 0.1	4.0	1.0	15.0	< 0.2	20.4	20.	< 50.0
OCT 25, 1988	1.2	0.2	6.3	< 1.0	< 1.0	< 0.2	18.2	10.	< 50.0

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 3

SAMPLE DATE	WATER	WATER	FIELD			FIELD	LAB	LAB	ALKALINITY	TOTAL
	ELEVATION	DEPTH	TEMP	FIELD	LAB	CONDUCTIVITY	CONDUCTIVITY	CONDUCTIVITY	MG/L AS	AMMONIA
	FEET	FEET	C	PH	PH	U/CM	U/CM	U/CM	CACO3	NITROGEN
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MAR 30, 1988	691.79	14.40	12.3	8.16	6.50	5690	5901		1240	145.00
JUL 28, 1988	691.89	14.30	16.4	6.65	6.40	5190			1280	165.00
OCT 20, 1988	691.79	14.40	12.7	6.53	6.70	5320	5179		1260	164.00

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 3

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MAR 30, 1988	< 1.0	< 0.1	3.6	< 1.0	6.7	< 0.2	27.2	80.	< 50.0
JUL 28, 1988	< 1.0	< 0.1	6.7	< 1.0	< 1.0	< 0.2	23.0	60.	< 50.0
OCT 20, 1988	< 1.0	0.7	5.3	< 1.0	14.9	< 0.2	25.0	50.	< 50.0

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 4

SAMPLE DATE	WATER ELEVATION FEET	WATER DEPTH FEET	FIELD TEMP C	FIELD PH	LAB PH	FIELD CONDUCTIVITY U/CM	LAB CONDUCTIVITY U/CM	ALKALINITY MG/L AS CaCO3	TOTAL AMMONIA NITROGEN MG/L
MAR 30, 1988	690.83	12.55	11.6	6.65	6.40	3640	3342	1230	80.00
JUL 14, 1988	690.78	12.60	16.9	6.82	6.70	3169	3167	1190	95.00
OCT 20, 1988	690.63	12.75	14.4	6.54	6.70	3250	3076	1170	94.00

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 4

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
MAR 30, 1988	< 1.0	< 0.1	2.0	< 1.0	3.3	< 0.2	8.8	40.	< 50.0
JUL 14, 1988	< 1.0	< 0.1	2.0	< 1.0	7.4	< 0.2	6.5	50.	< 50.0
OCT 20, 1988	< 1.0	1.0	3.4	< 1.0	6.5	< 0.2	11.5	40.	< 50.0

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 5

SAMPLE DATE	WATER ELEVATION FEET	WATER DEPTH FEET	FIELD TEMP C	FIELD PH	LAB PH	FIELD CONDUCTIVITY U/CM	LAB CONDUCTIVITY U/CM	ALKALINITY MG/L AS CACO3	TOTAL AMMONIA NITROGEN MG/L
MAR 29, 1988	689.80	12.90	12.7	7.05	7.00	4190	4174	1280	7.00
JUL 14, 1988	689.50	13.20	16.8	6.94	6.80	4580	4801	1420	9.00
OCT 20, 1988	689.40	13.30	12.5	9.96	7.00	4590	4502	1490	4.00

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
WELL 5

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
MAR 29, 1988	99.0	< 0.1	1.4	< 1.0	5.7	< 0.2	74.0	20.	< 50.0
JUL 14, 1988	164.0	< 0.1	< 1.0	< 1.0	12.4	< 0.2	50.8	20.	< 50.0
OCT 20, 1988	174.0	2.2	2.3	< 1.0	34.9	< 0.2	56.0	90.	< 50.0

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
BATTLE CREEK UPSTREAM

SAMPLE DATE	WATER ELEVATION FEET	WATER DEPTH FEET	FIELD TEMP C	FIELD PH	LAB PH	FIELD CONDUCTIVITY U/CM	LAB CONDUCTIVITY U/CM	ALKALINITY MG/L AS CaCO3	TOTAL AMMONIA NITROGEN MG/L
MAR 29, 1988			4.8	8.08	7.80	629	671	153	0.32
JUL 14, 1988			26.0	7.87	7.70	616	618	230	0.04
OCT 20, 1988			8.5	7.89	7.80	652	647	251	< 0.02

METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
BATTLE CREEK UPSTREAM

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
MAR 29, 1988	< 1.0	< 0.1	< 1.0	2.1	< 1.0	< 0.2	< 1.0	20.	< 50.0
JUL 14, 1988	1.9	< 0.1	< 1.0	1.1	< 1.0	< 0.2	1.2	5.	< 50.0
OCT 20, 1988	< 1.0	0.2	5.2	1.1	3.5	0.3	4.0	50.	< 50.0

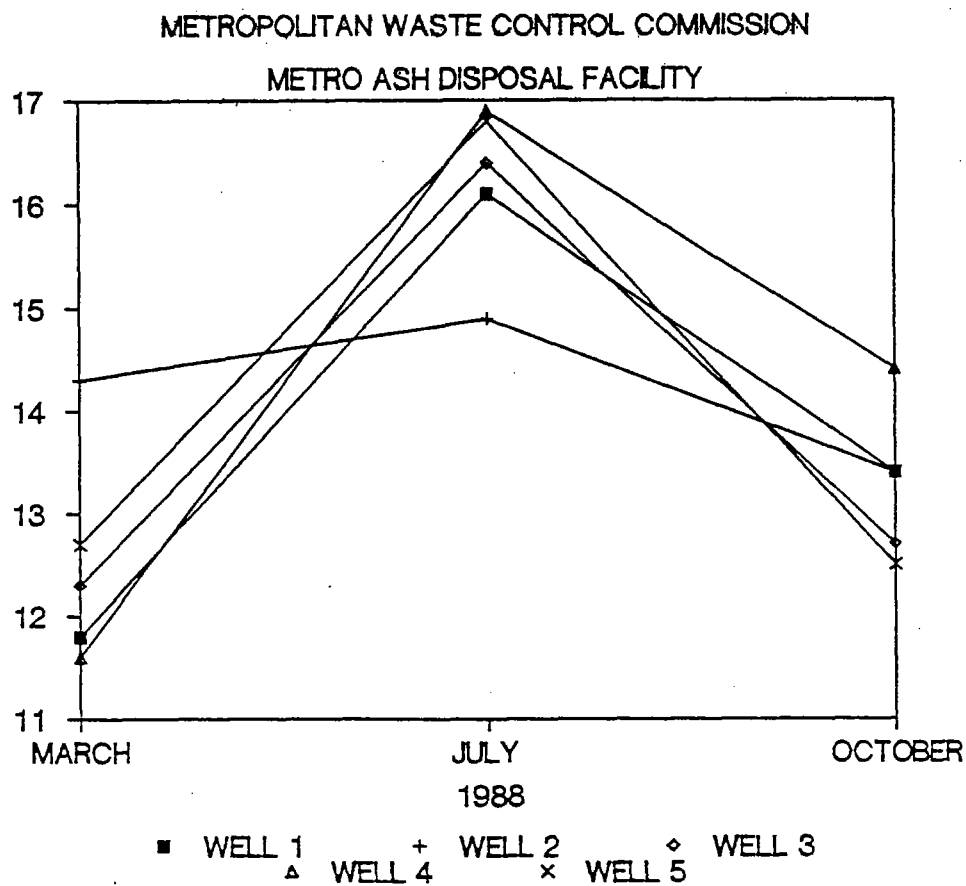
METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
BATTLE CREEK DOWNSTREAM

SAMPLE DATE	WATER ELEVATION FEET	WATER DEPTH FEET	FIELD TEMP C	FIELD PH	LAB PH	FIELD CONDUCTIVITY U/CM	LAB CONDUCTIVITY U/CM	ALKALINITY MG/L AS CaCO3	TOTAL AMMONIA NITROGEN MG/L
MAR 29, 1988			3.8	7.90	7.80	654	630	157	0.75
JUL 14, 1988			21.6	7.59	7.60	680	639	233	1.00
OCT 20, 1988			6.7	7.81	7.70	700	694	266	1.77

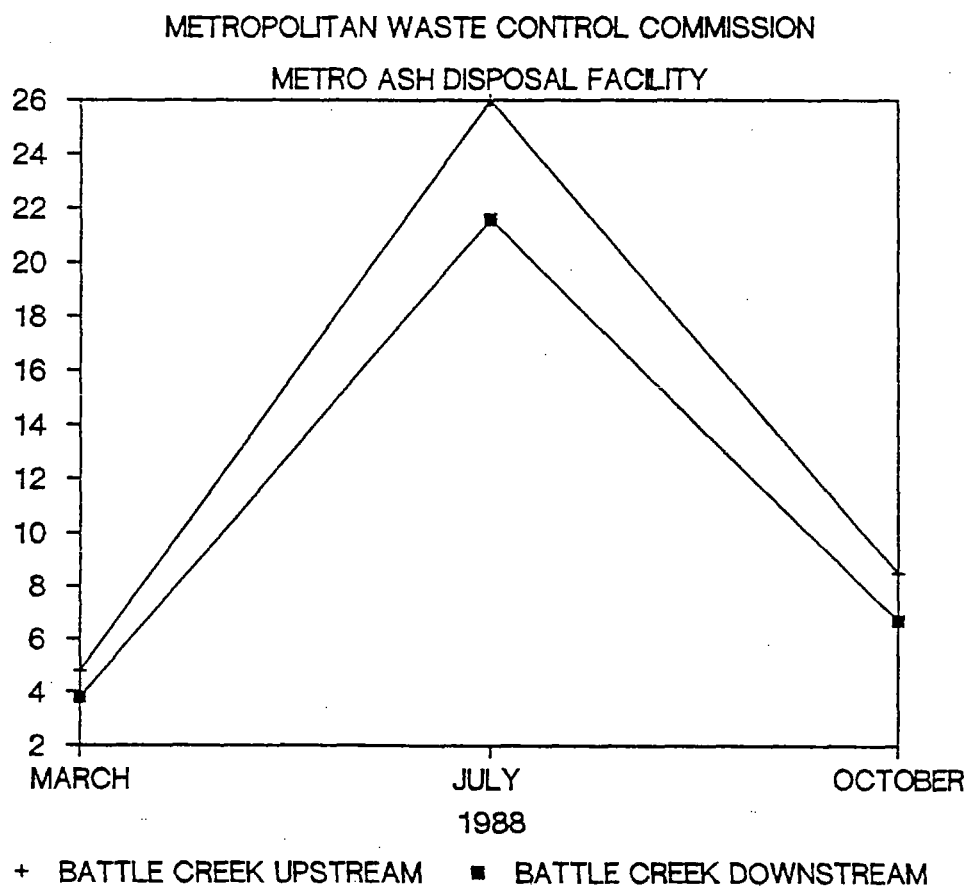
METROPOLITAN WASTE CONTROL COMMISSION
1988 GROUNDWATER MONITORING DATA
METRO ASH DISPOSAL FACILITY
BATTLE CREEK DOWNSTREAM

SAMPLE DATE	DISSOLVED ARSENIC UG/L	DISSOLVED CADMIUM UG/L	DISSOLVED CHROMIUM UG/L	DISSOLVED COPPER UG/L	DISSOLVED LEAD UG/L	DISSOLVED MERCURY UG/L	DISSOLVED NICKEL UG/L	DISSOLVED ZINC UG/L	HEXAVALENT CHROMIUM UG/L
MAR 29, 1988	< 1.0	0.1	< 1.0	1.4	< 1.0	< 0.2	< 1.0	< 5.	< 50.0
JUL 14, 1988	2.2	0.2	< 1.0	1.8	< 1.0	< 0.2	2.3	2.	< 50.0
OCT 20, 1988	1.0	0.4	< 1.0	< 1.0	5.3	< 0.2	1.9	10.	< 50.0

TEMPERATURE, C

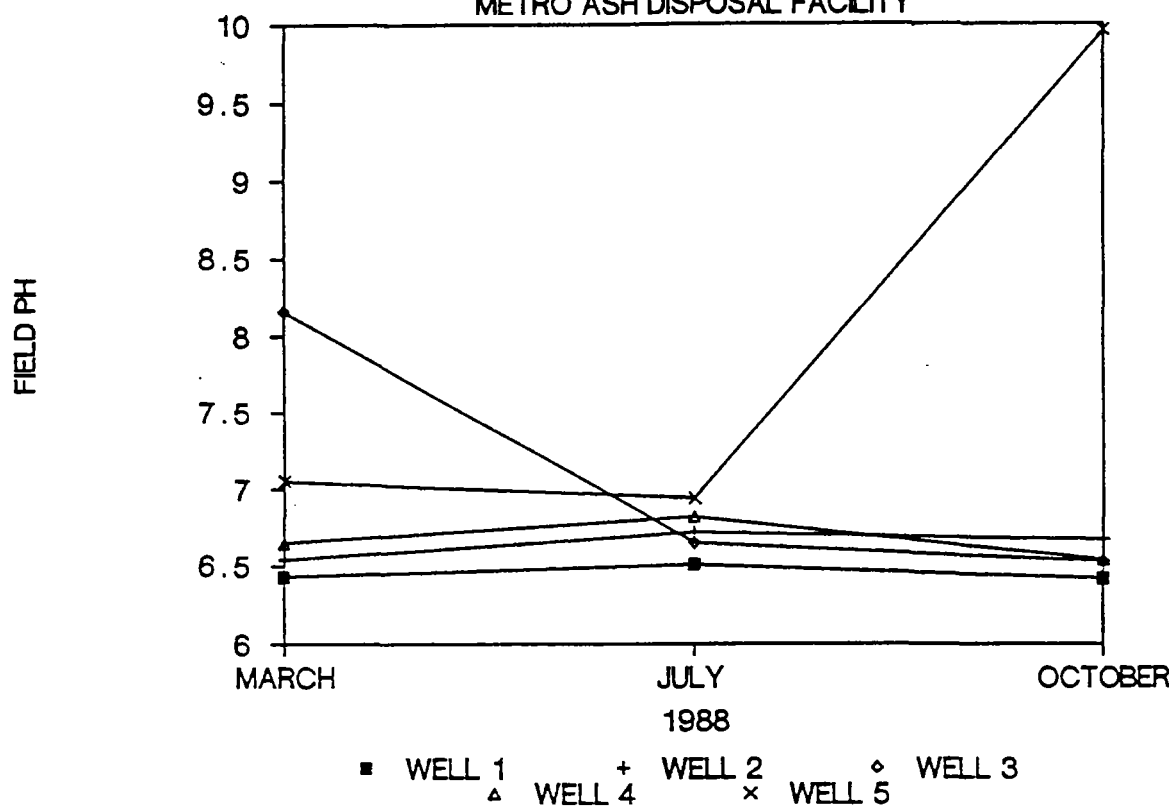


TEMPERATURE, C



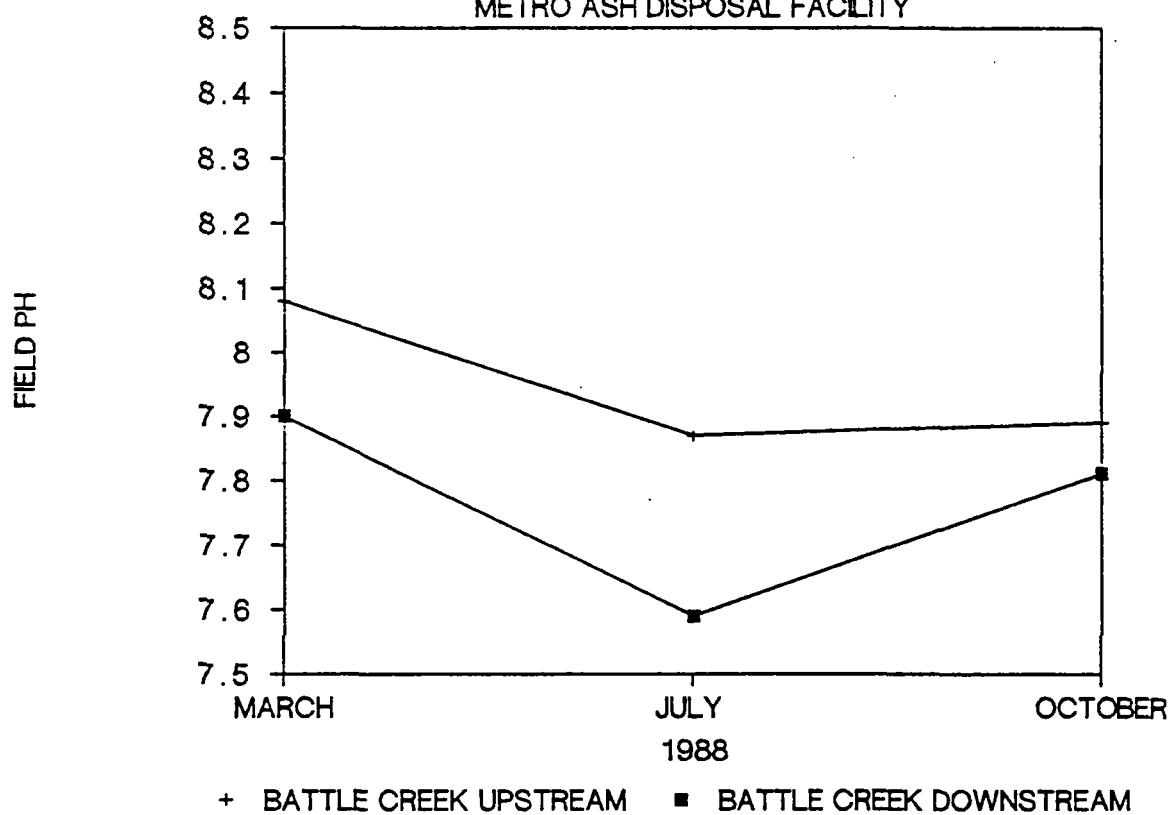
METROPOLITAN WASTE CONTROL COMMISSION

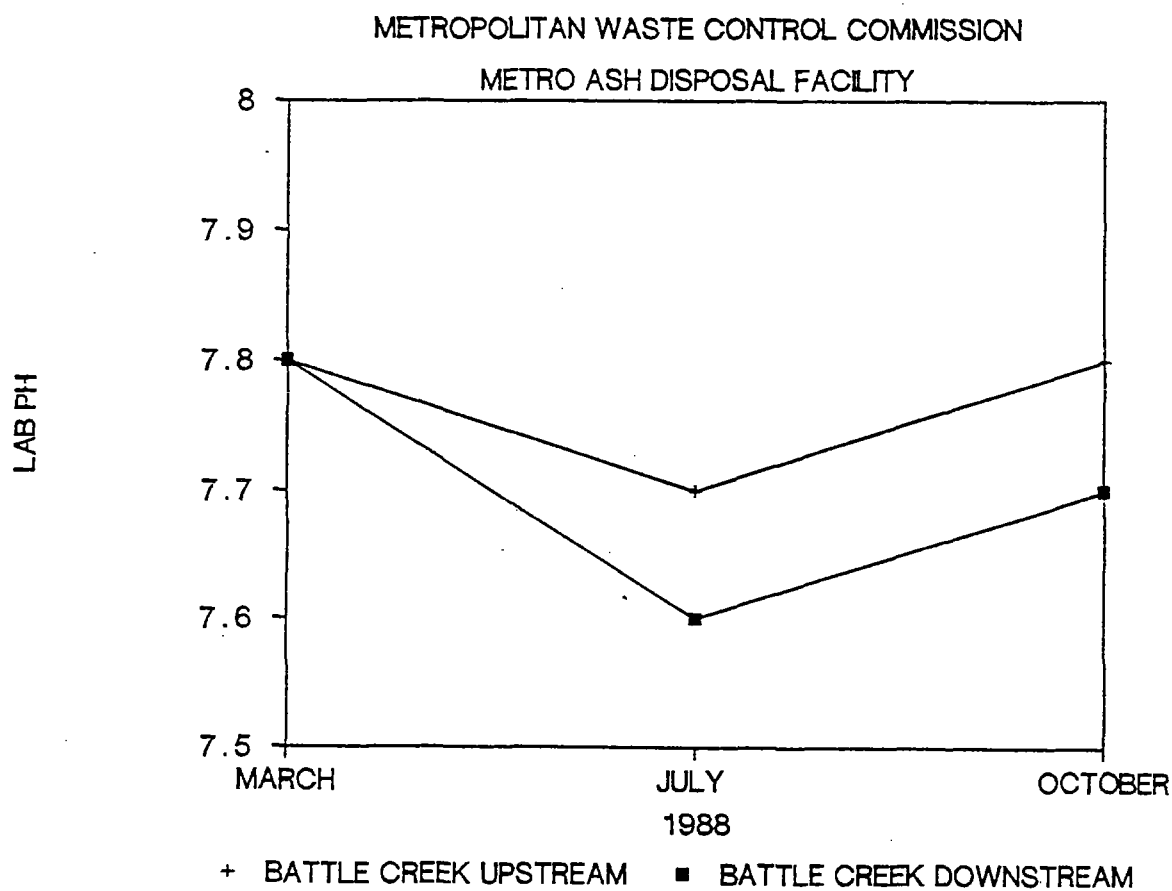
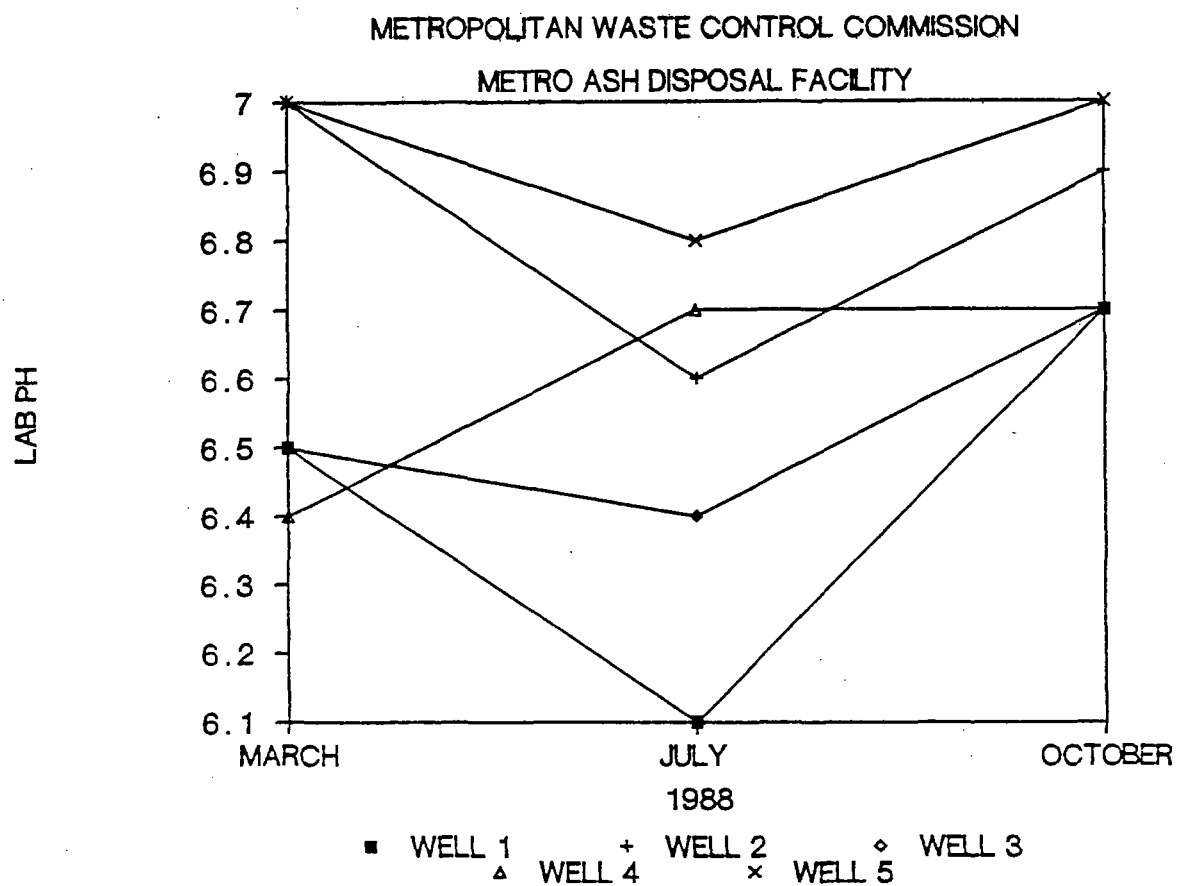
METRO ASH DISPOSAL FACILITY



METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

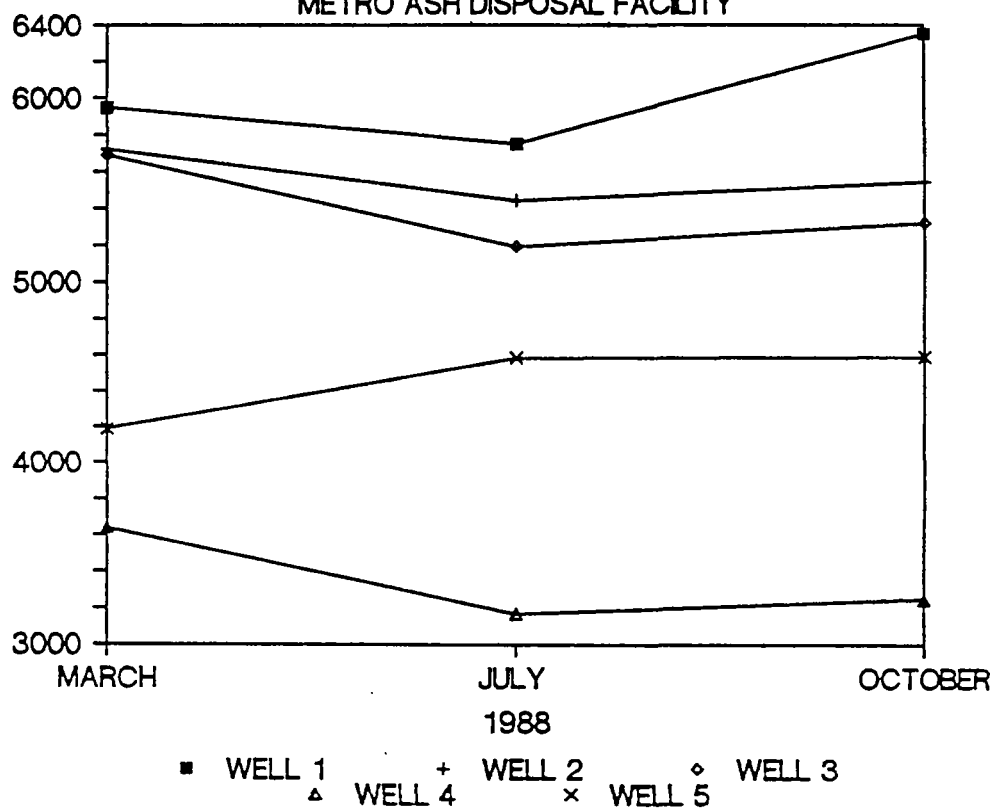




METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

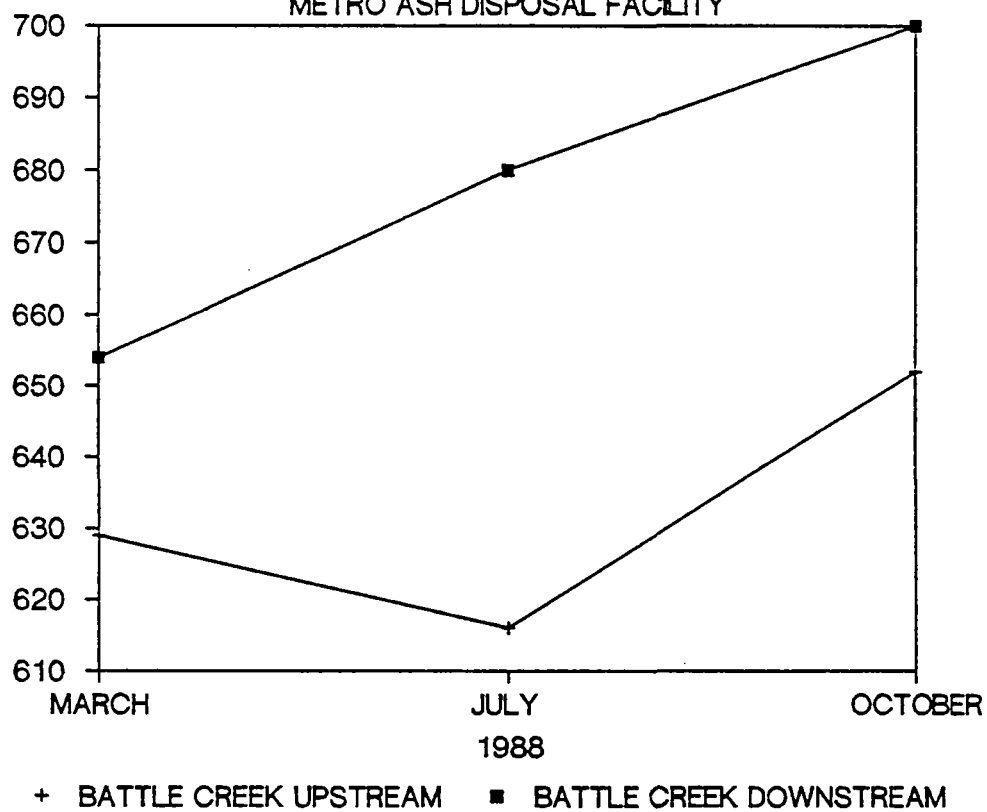
FIELD CONDUCTIVITY, U/CM



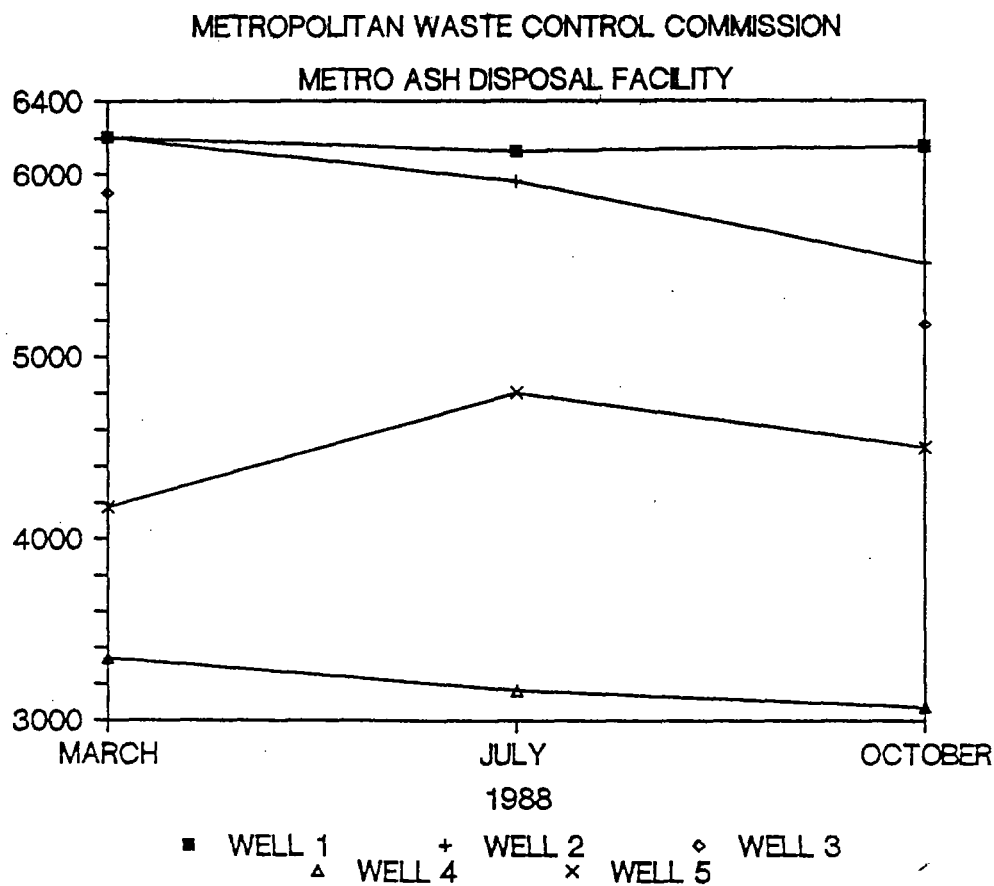
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

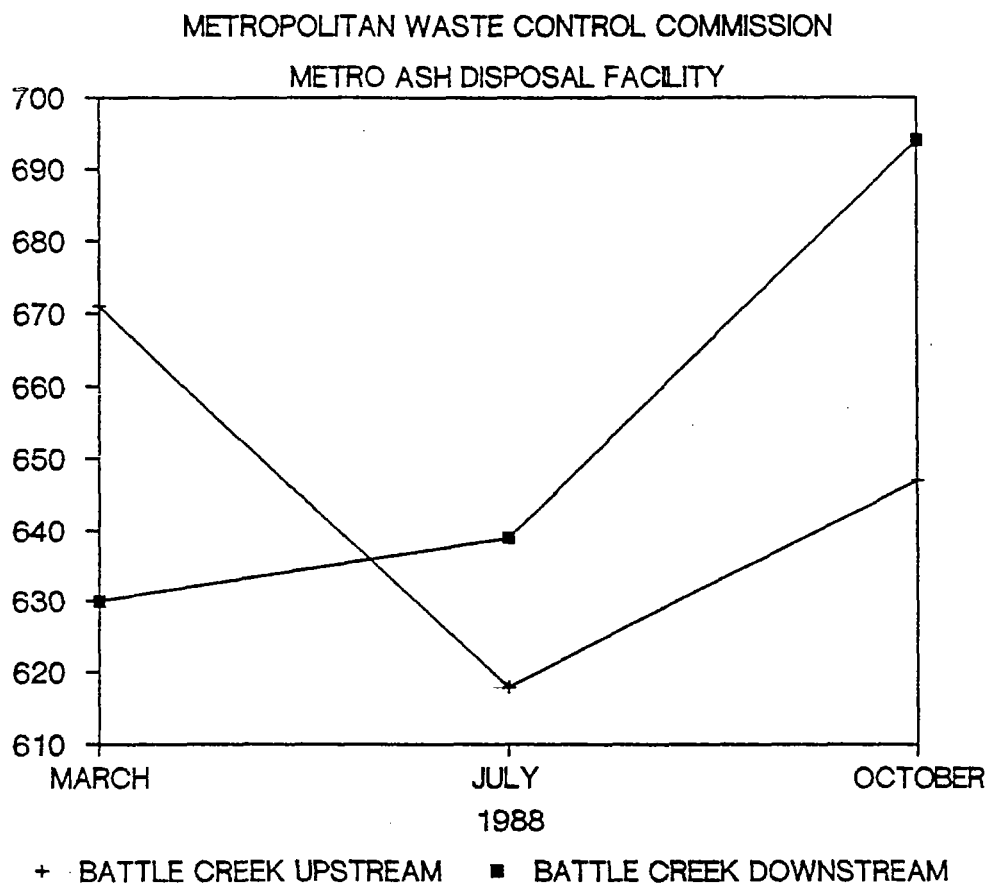
FIELD CONDUCTIVITY, U/CM



LAB CONDUCTIVITY, U/CM

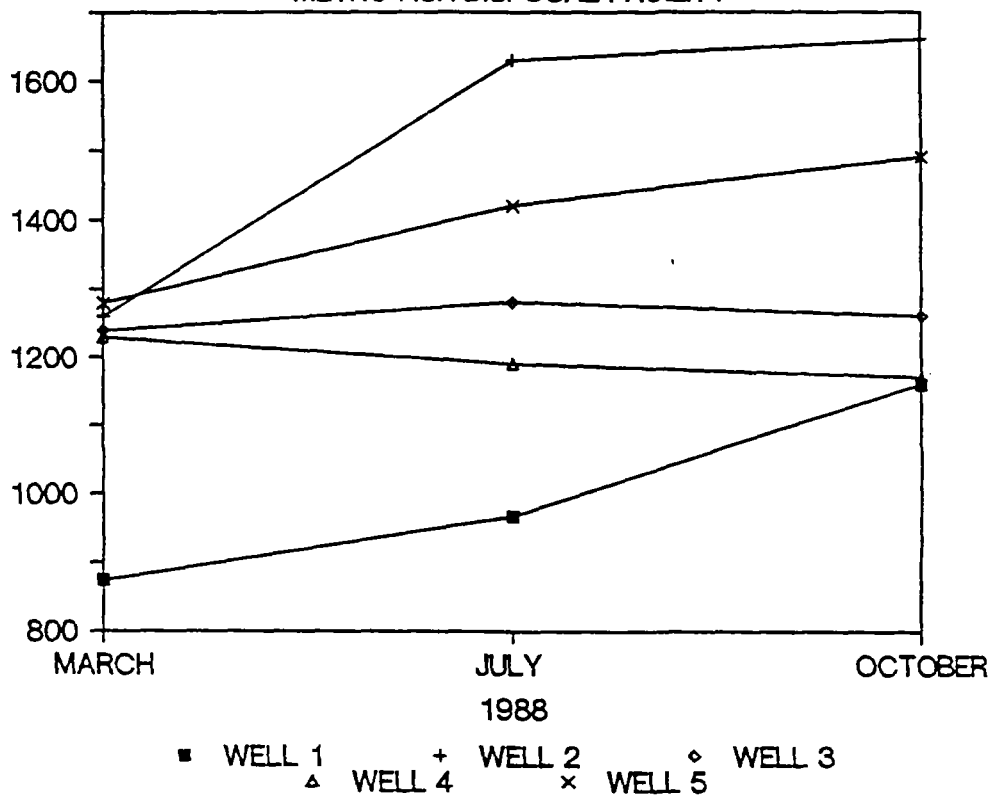


LAB CONDUCTIVITY, U/CM



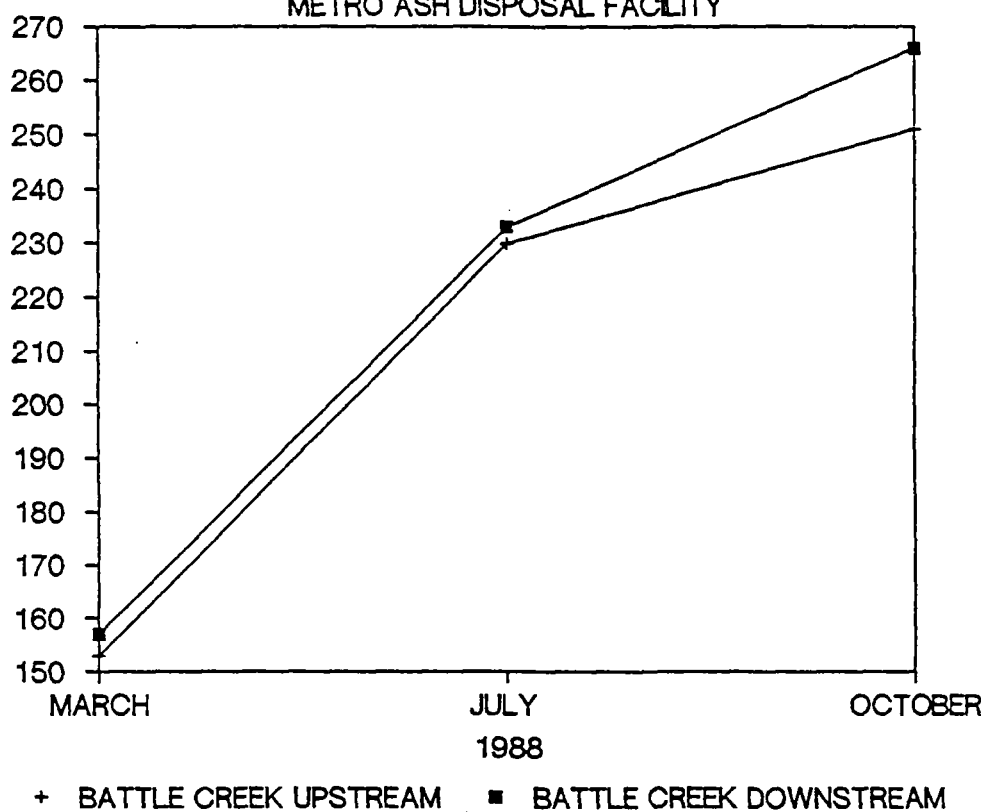
METROPOLITAN WASTE CONTROL COMMISSION
METRO ASH DISPOSAL FACILITY

ALKALINITY, MG/L AS CaCO_3



METROPOLITAN WASTE CONTROL COMMISSION
METRO ASH DISPOSAL FACILITY

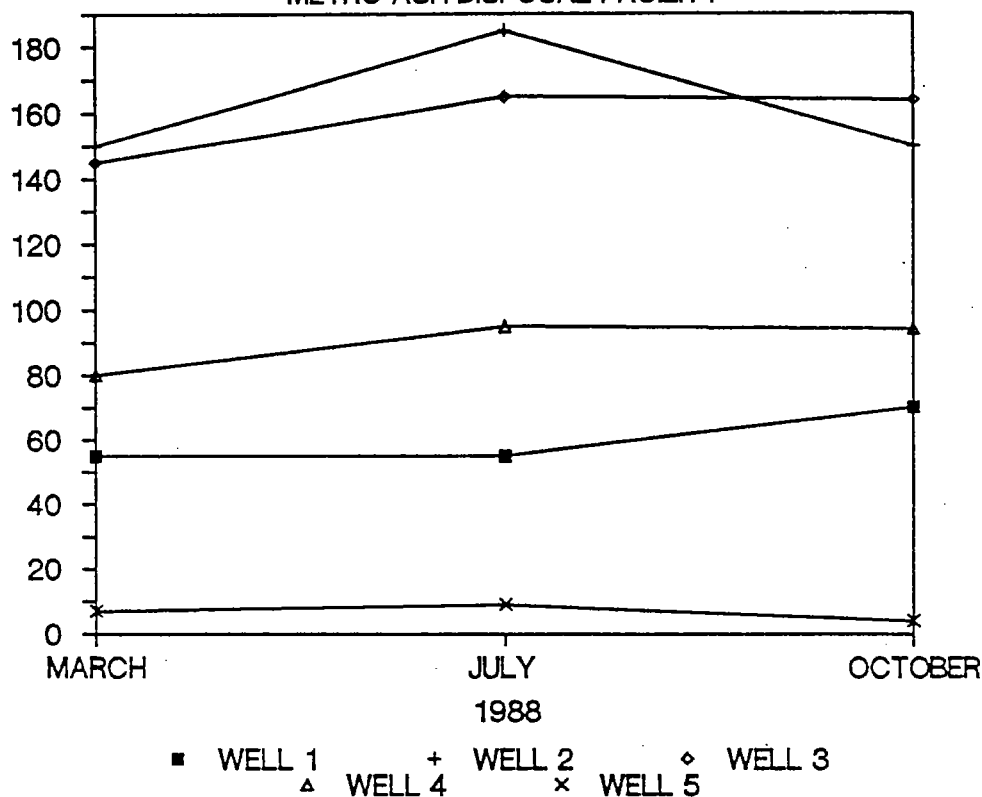
ALKALINITY, MG/L AS CaCO_3



METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

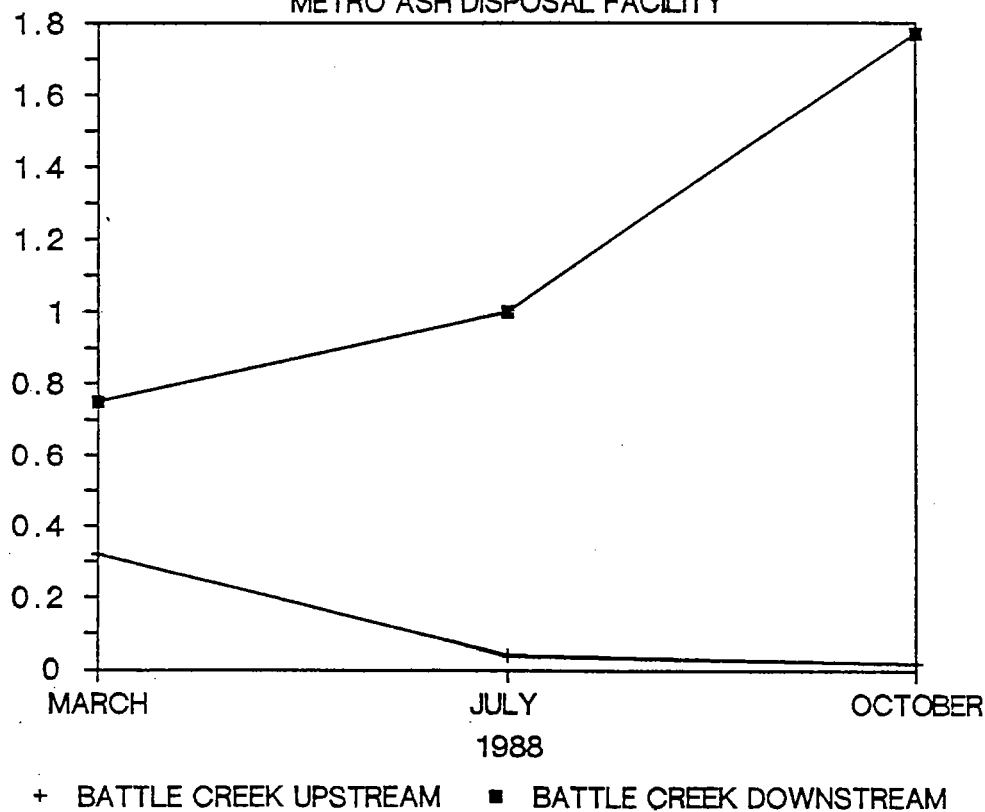
TOTAL AMMONIA NITROGEN, MG/L



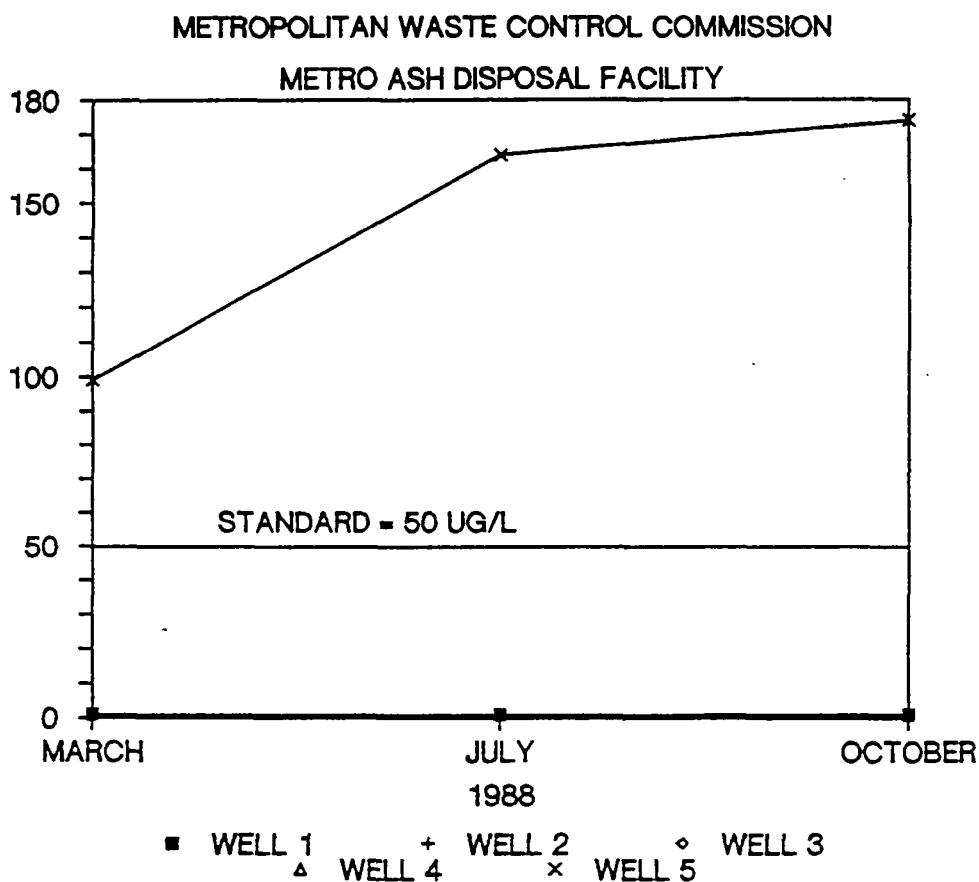
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

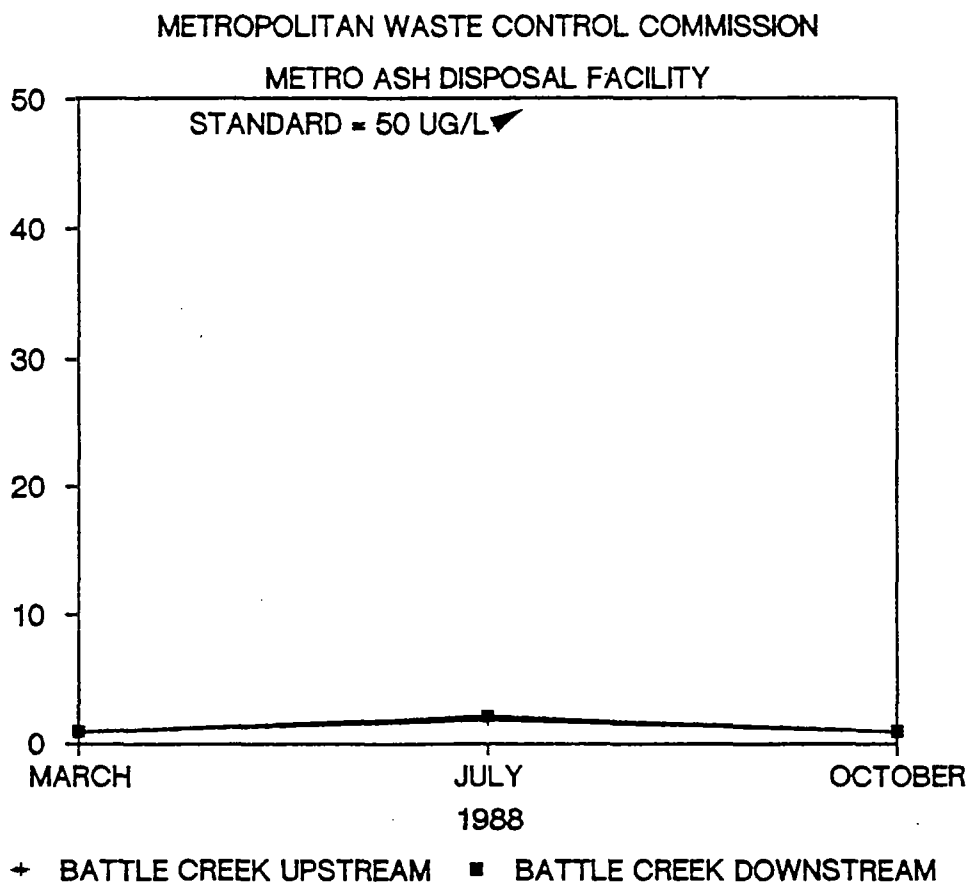
TOTAL AMMONIA NITROGEN, MG/L



DISSOLVED ARSENIC, UG/L



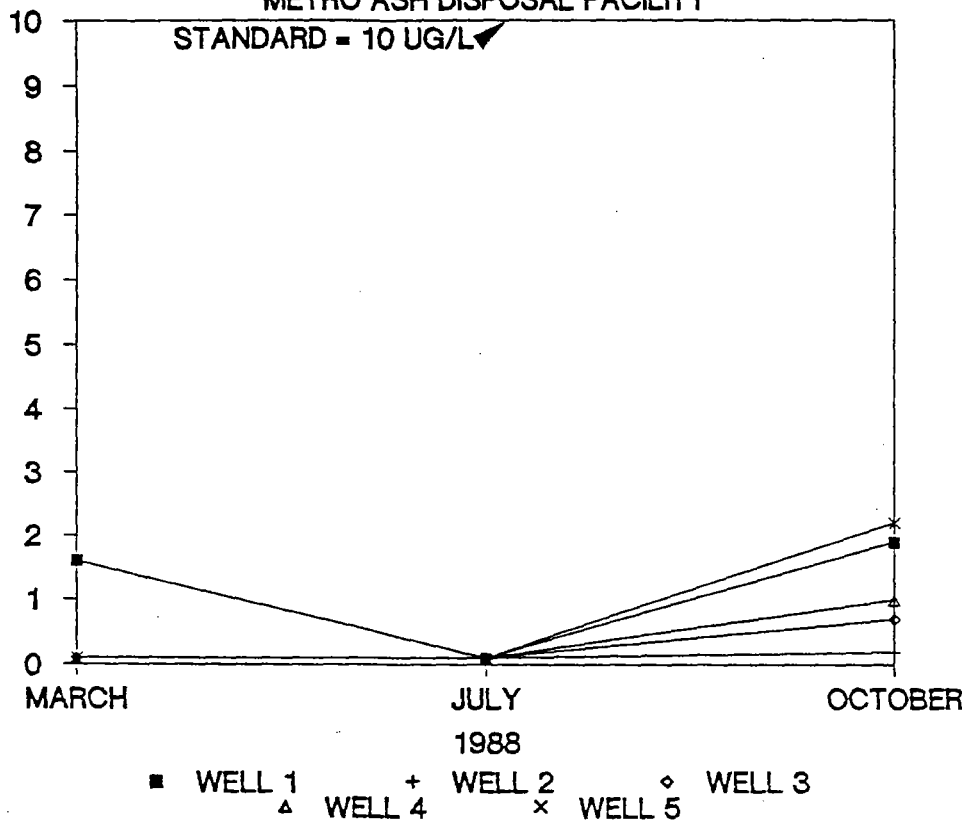
DISSOLVED ARSENIC, UG/L



METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

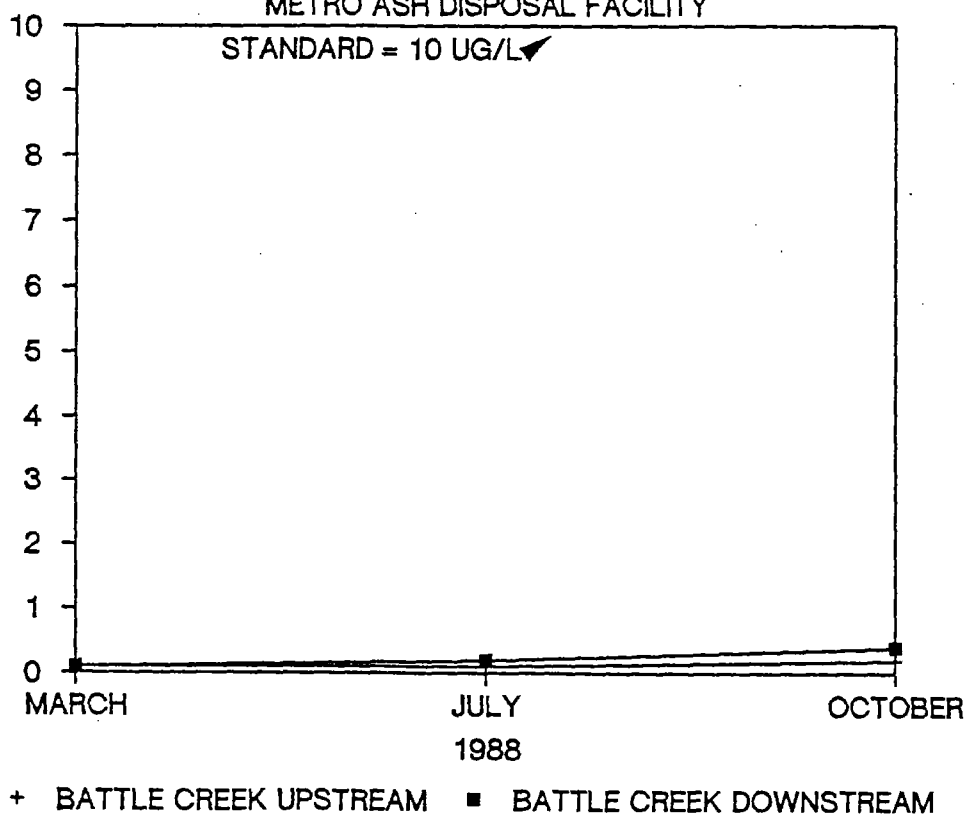
DISSOLVED CADMIUM, UG/L



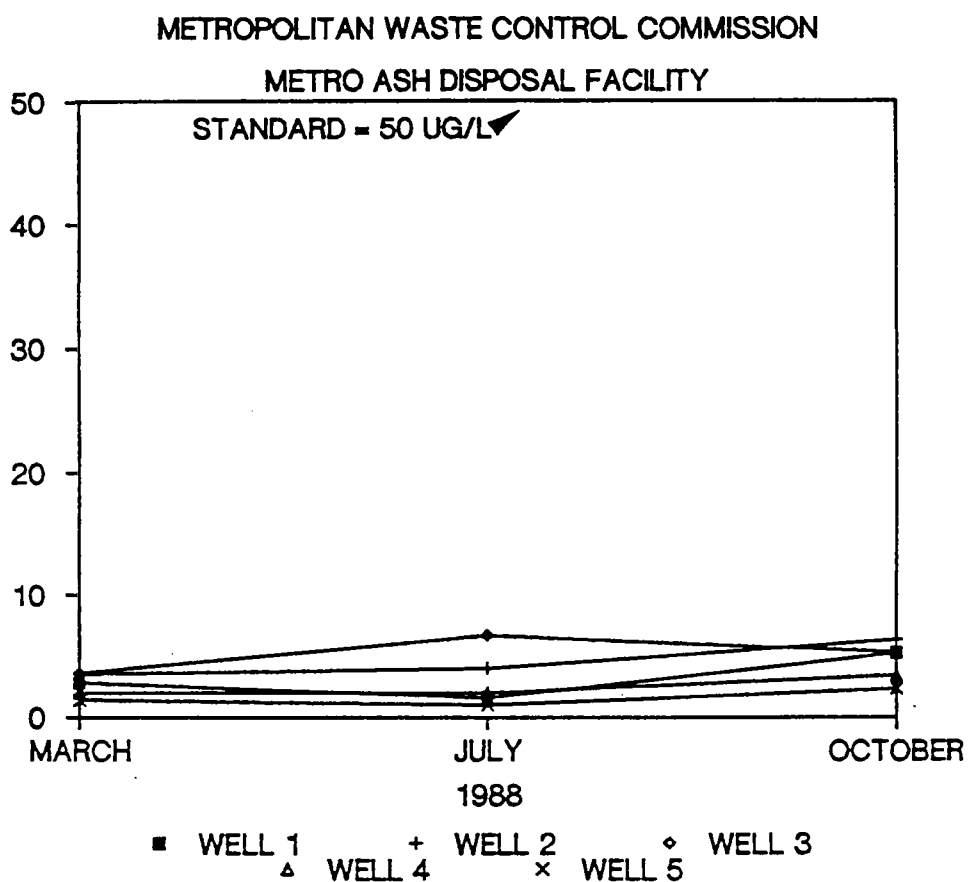
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

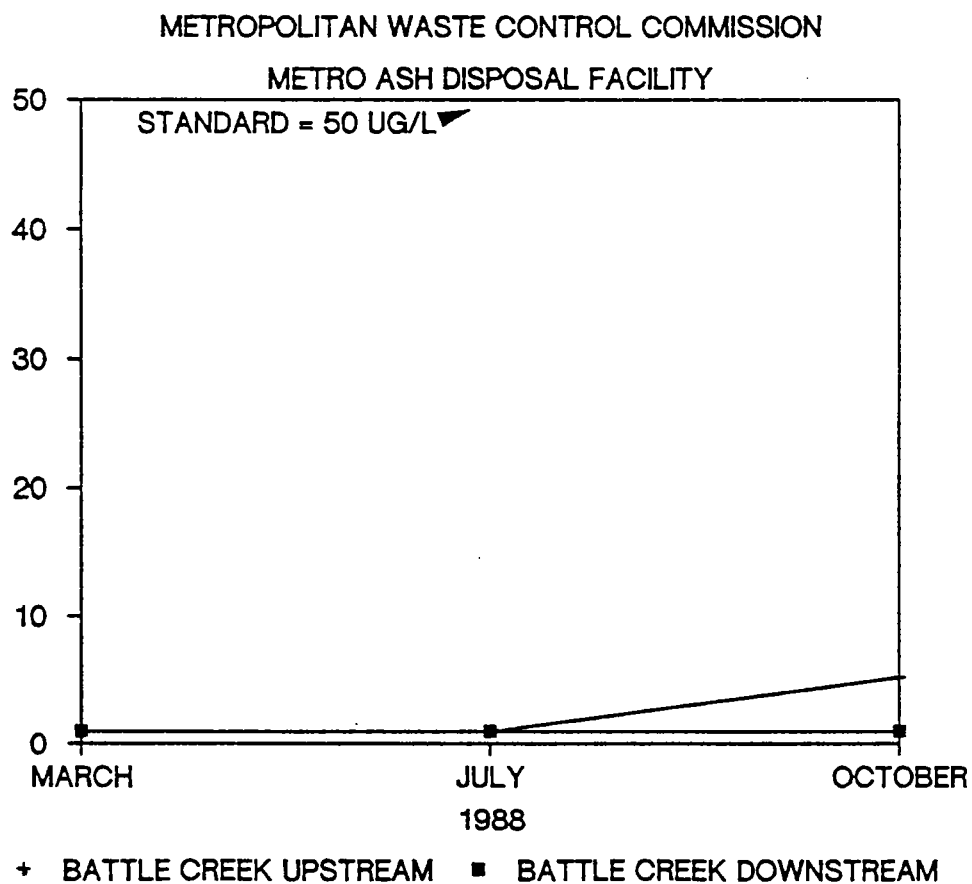
DISSOLVED CADMIUM, UG/L



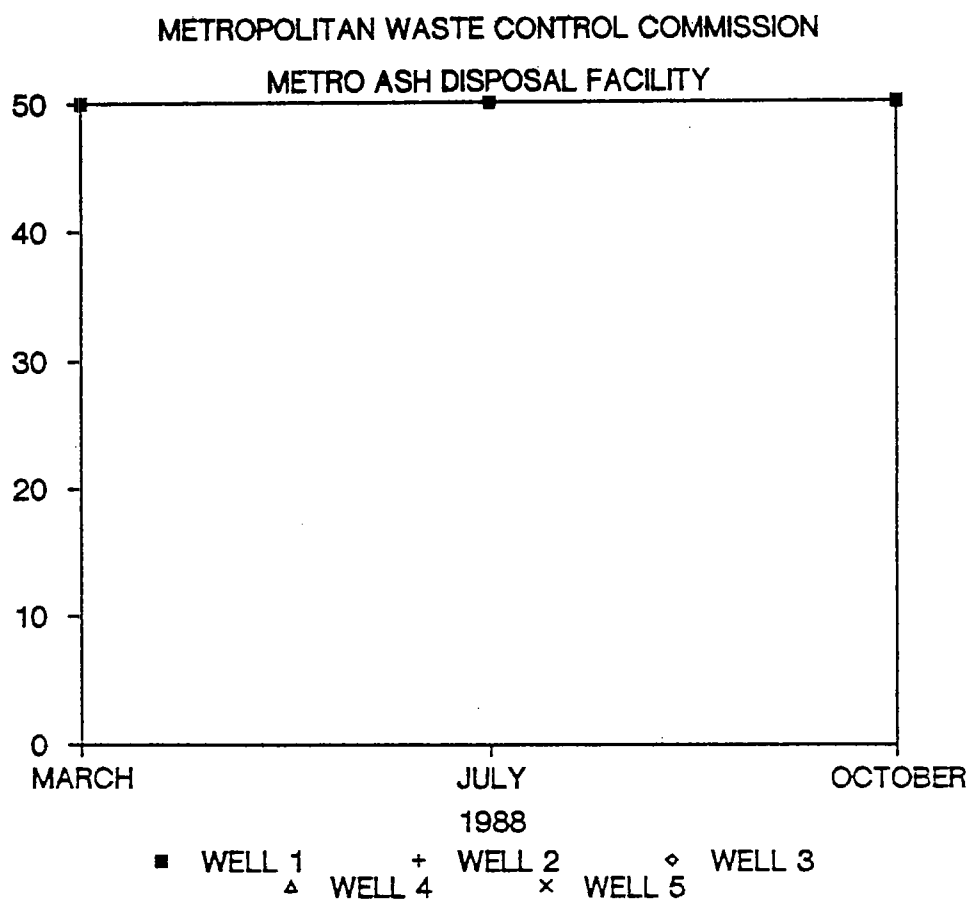
DISSOLVED CHROMIUM, UG/L



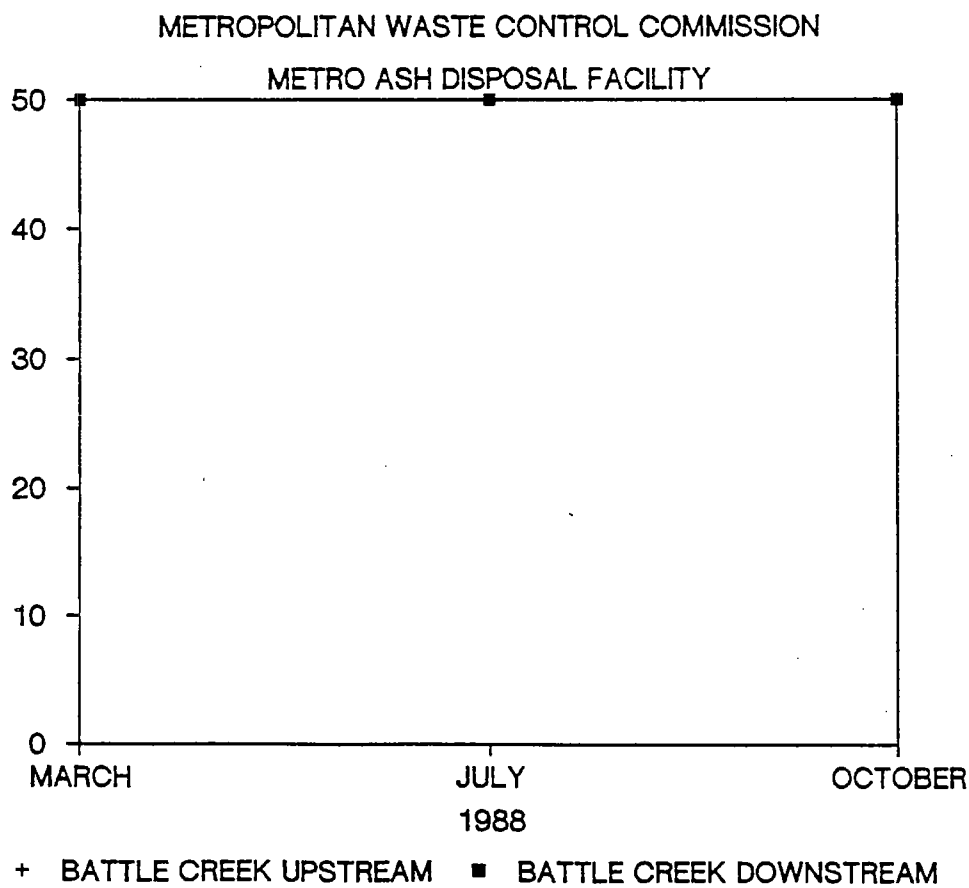
DISSOLVED CHROMIUM, UG/L

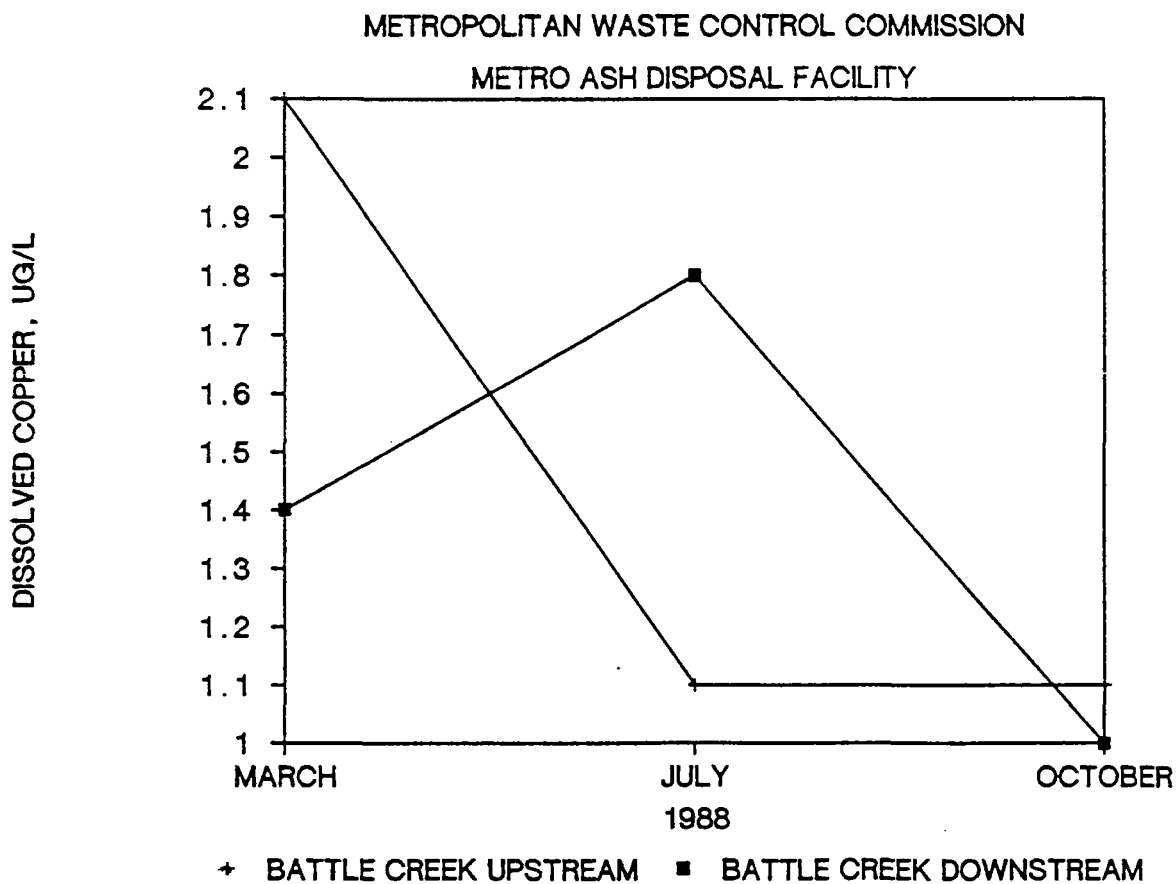
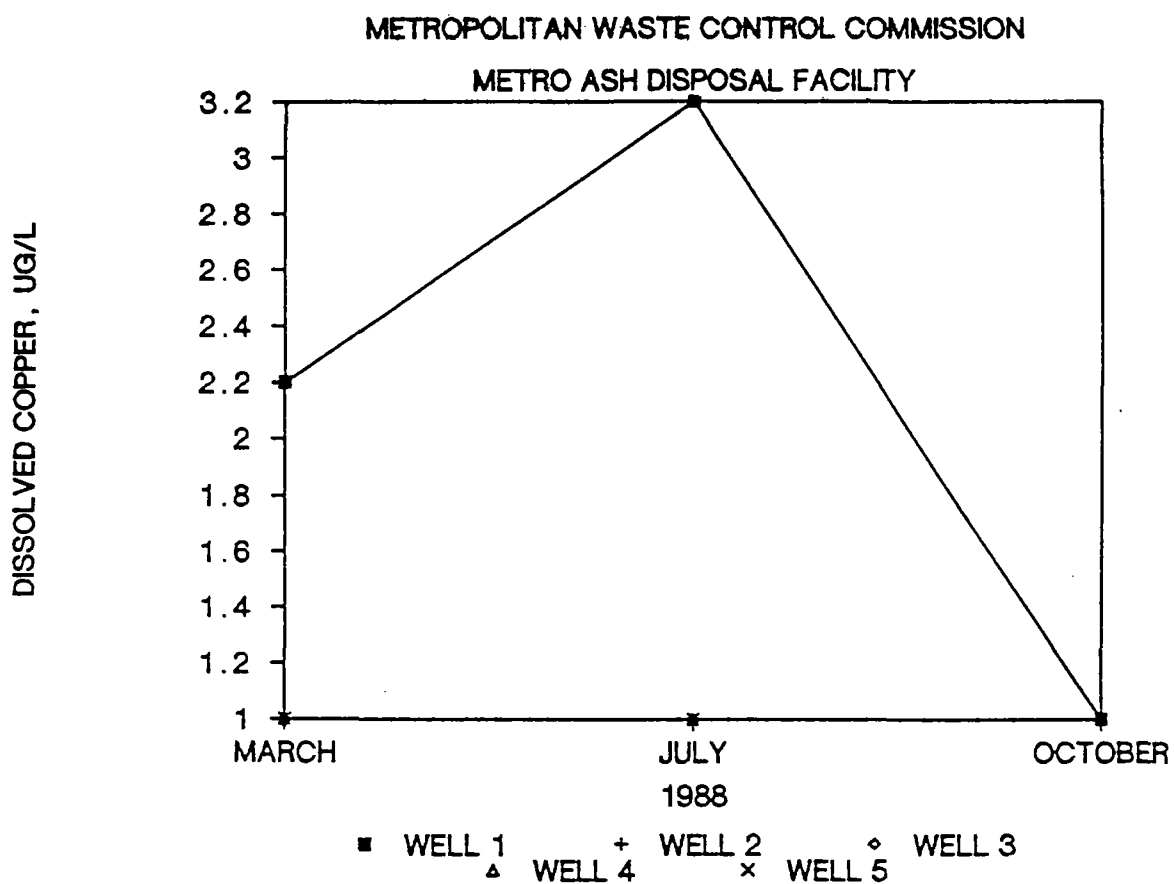


HEXAVALENT CHROMIUM, UG/L



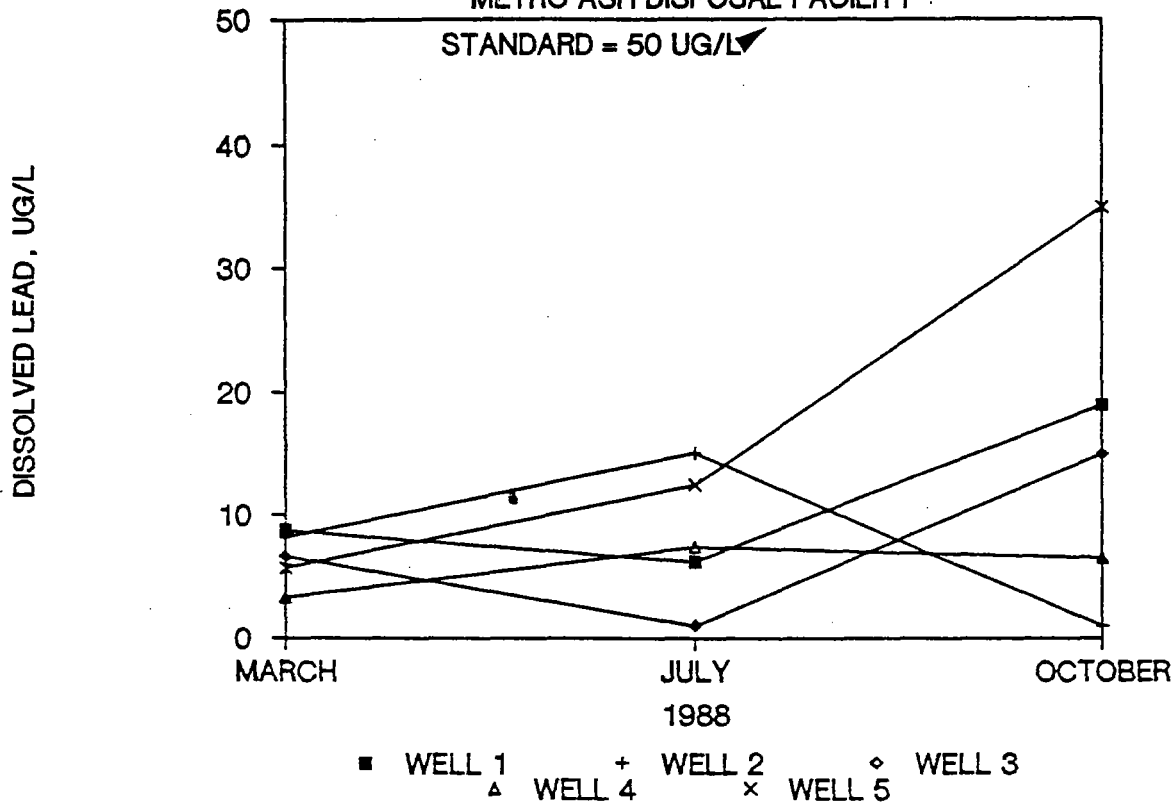
HEXAVALENT CHROMIUM, UG/L





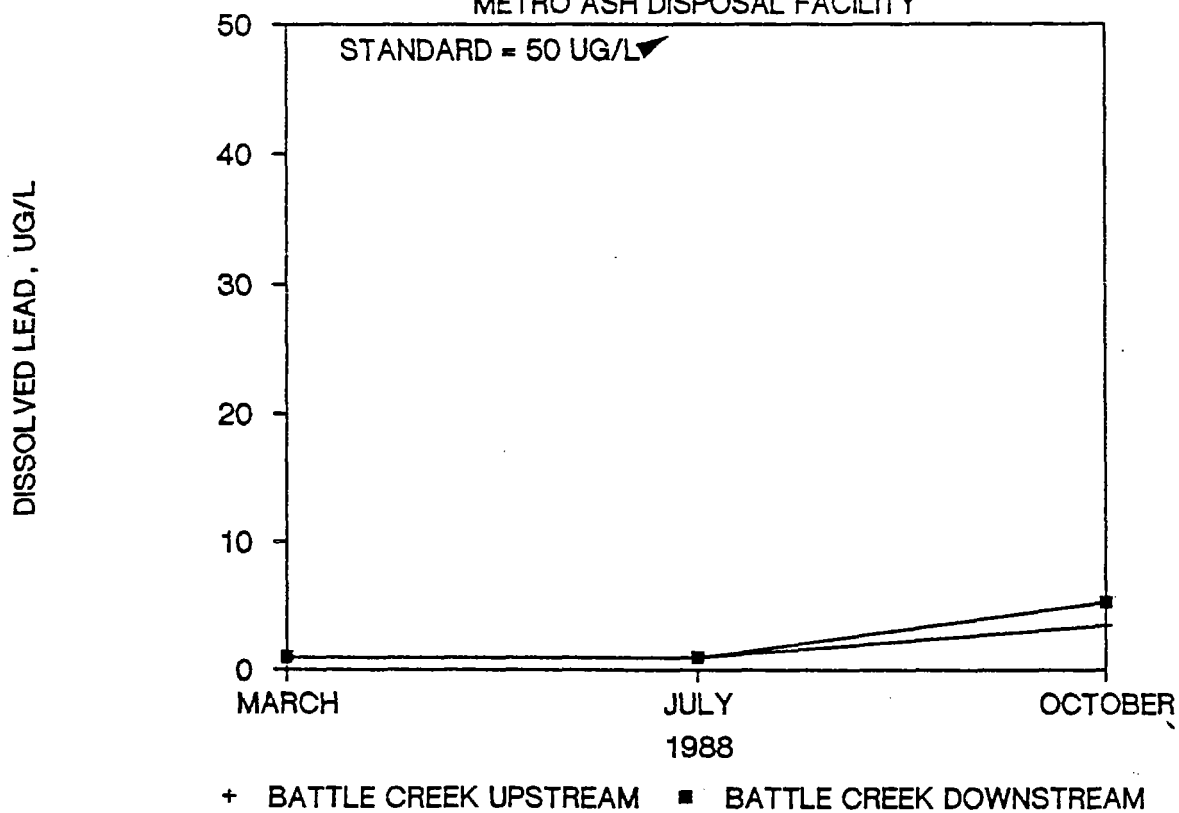
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY



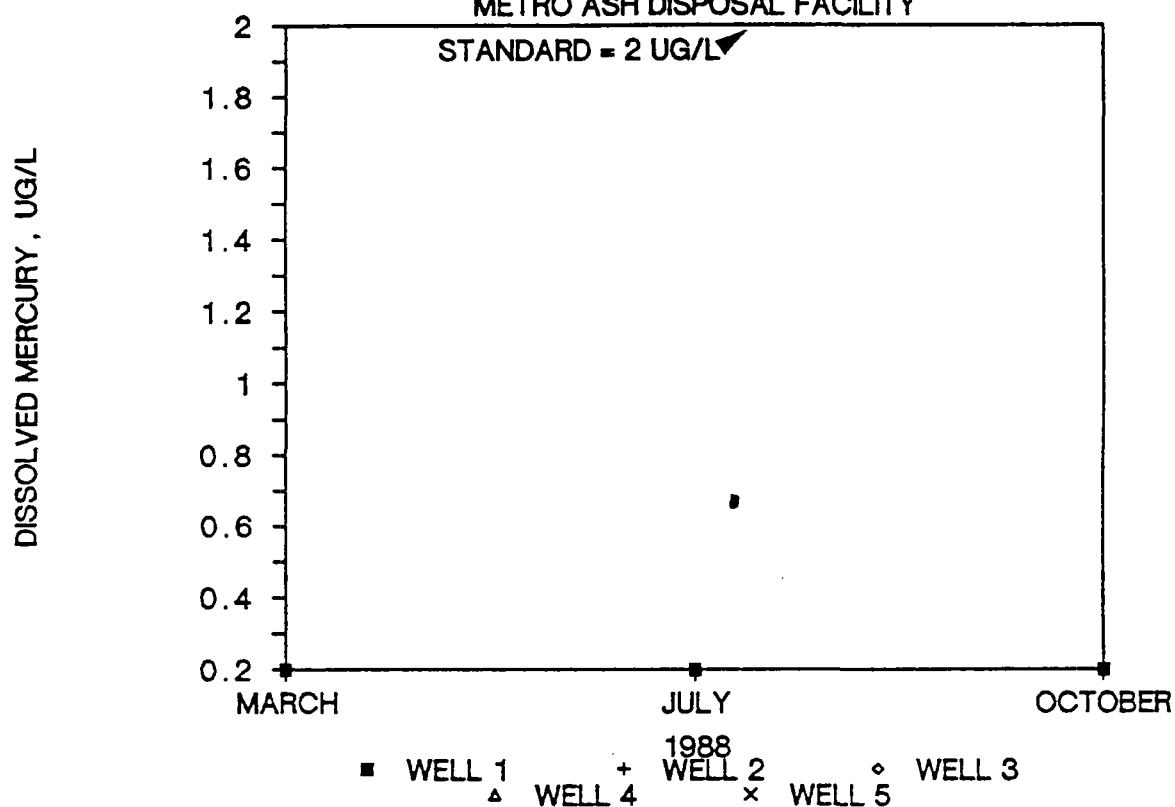
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY



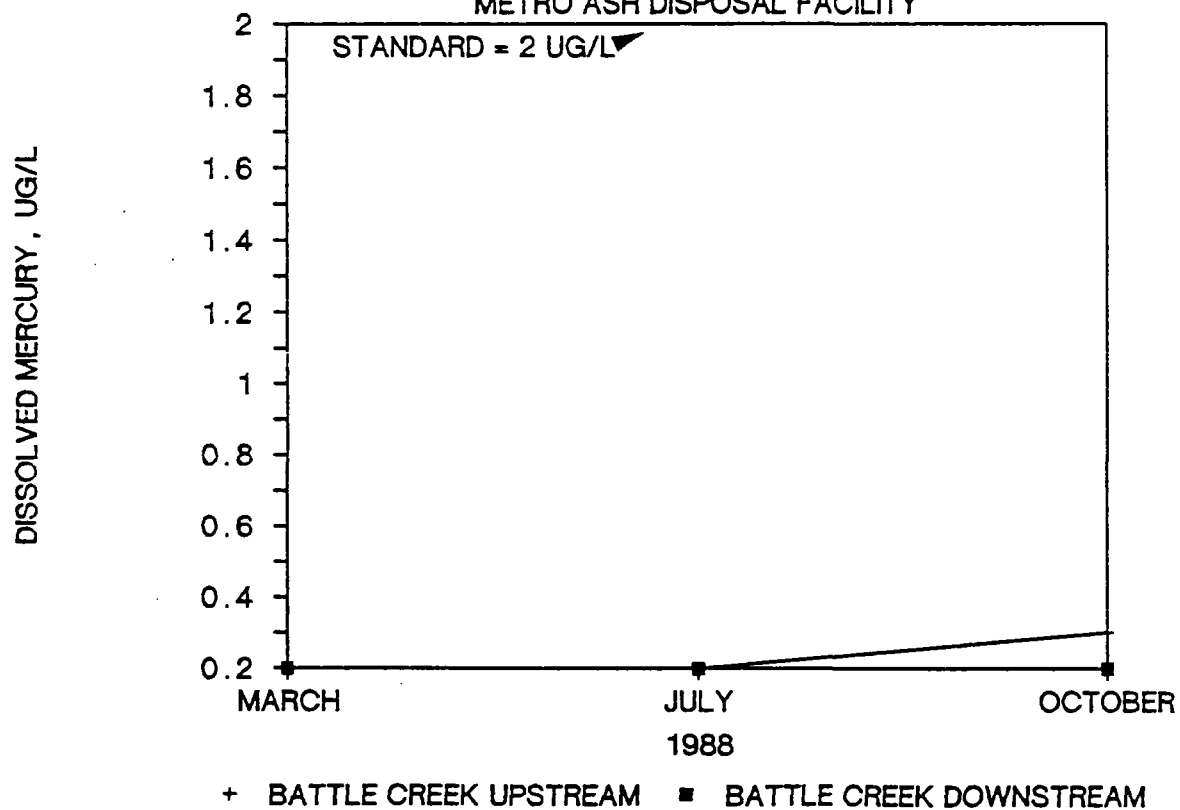
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY



METROPOLITAN WASTE CONTROL COMMISSION

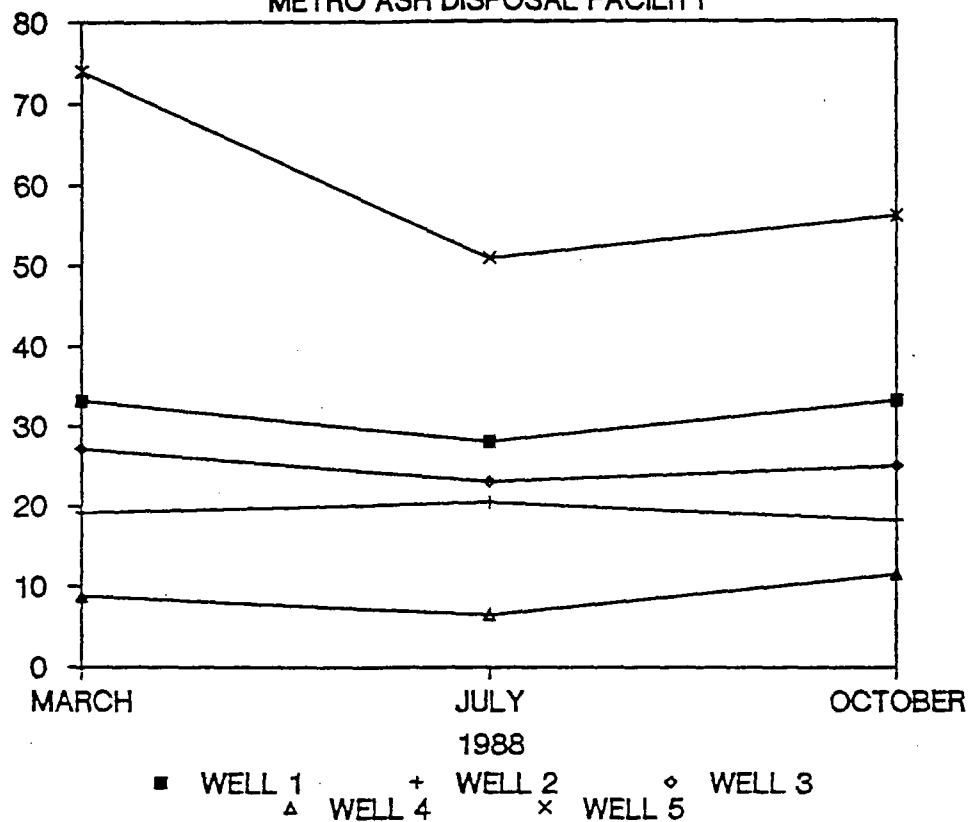
METRO ASH DISPOSAL FACILITY



METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY

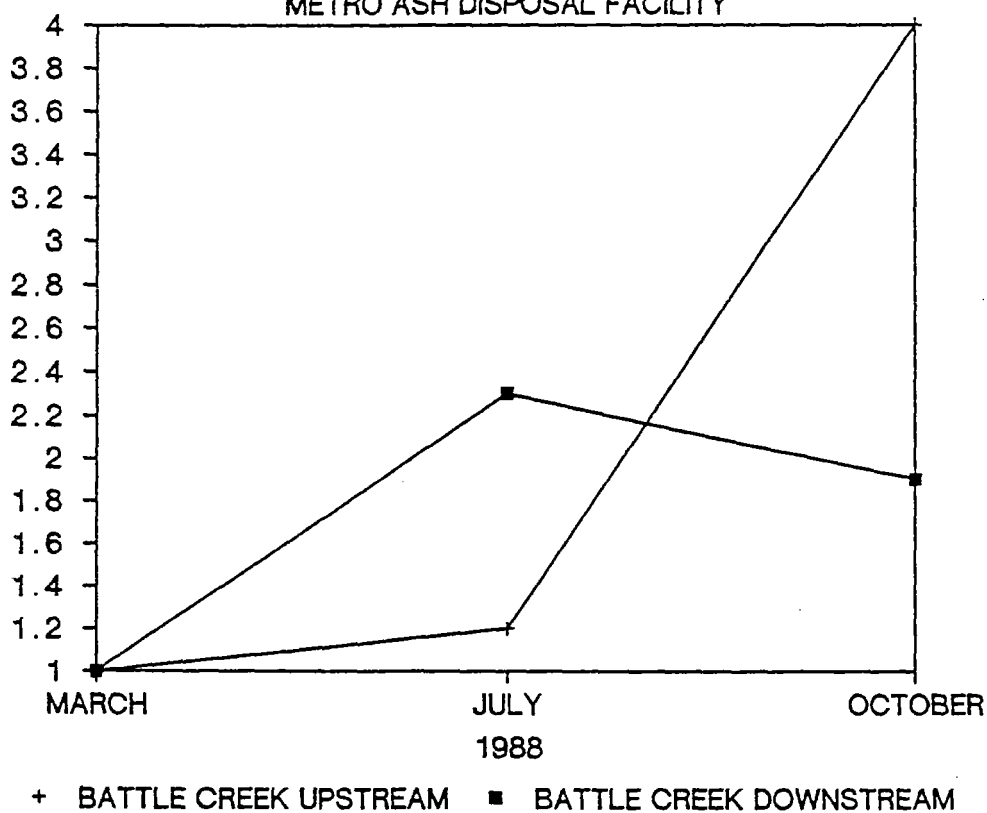
DISSOLVED NICKEL, UG/L



METROPOLITAN WASTE CONTROL COMMISSION

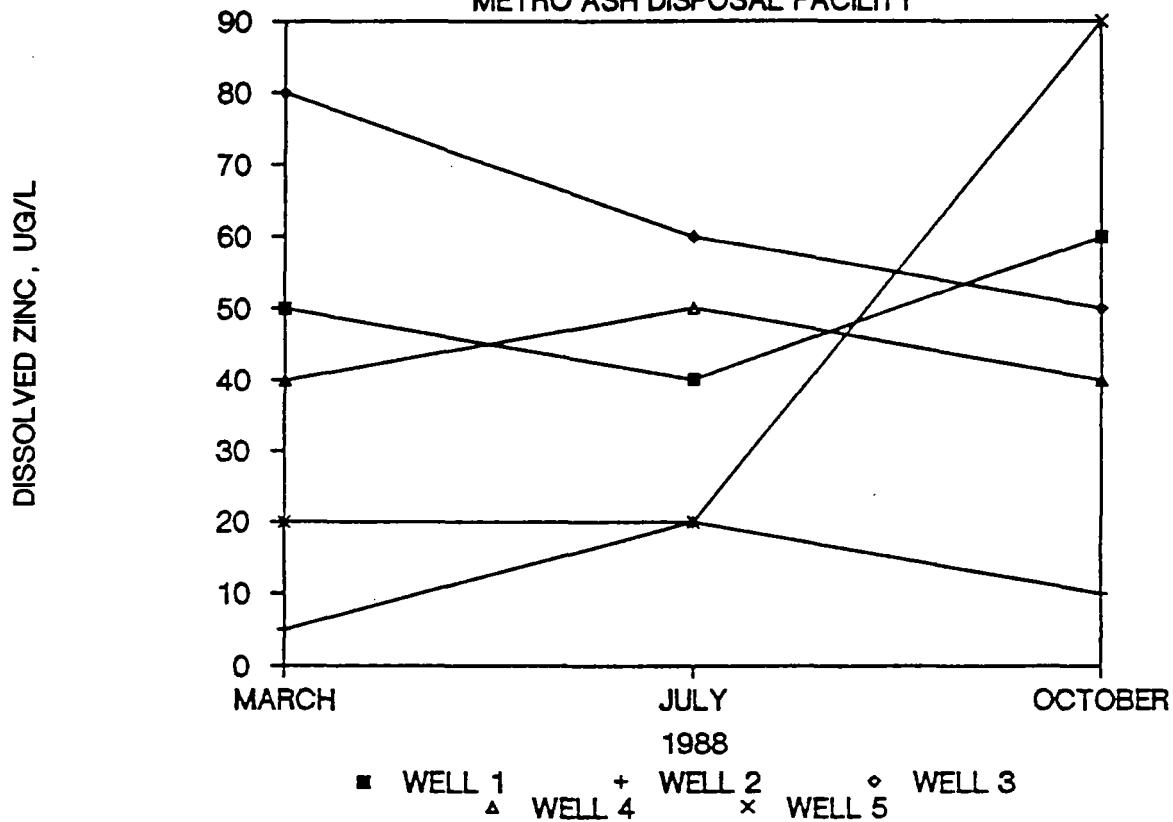
METRO ASH DISPOSAL FACILITY

DISSOLVED NICKEL, UG/L



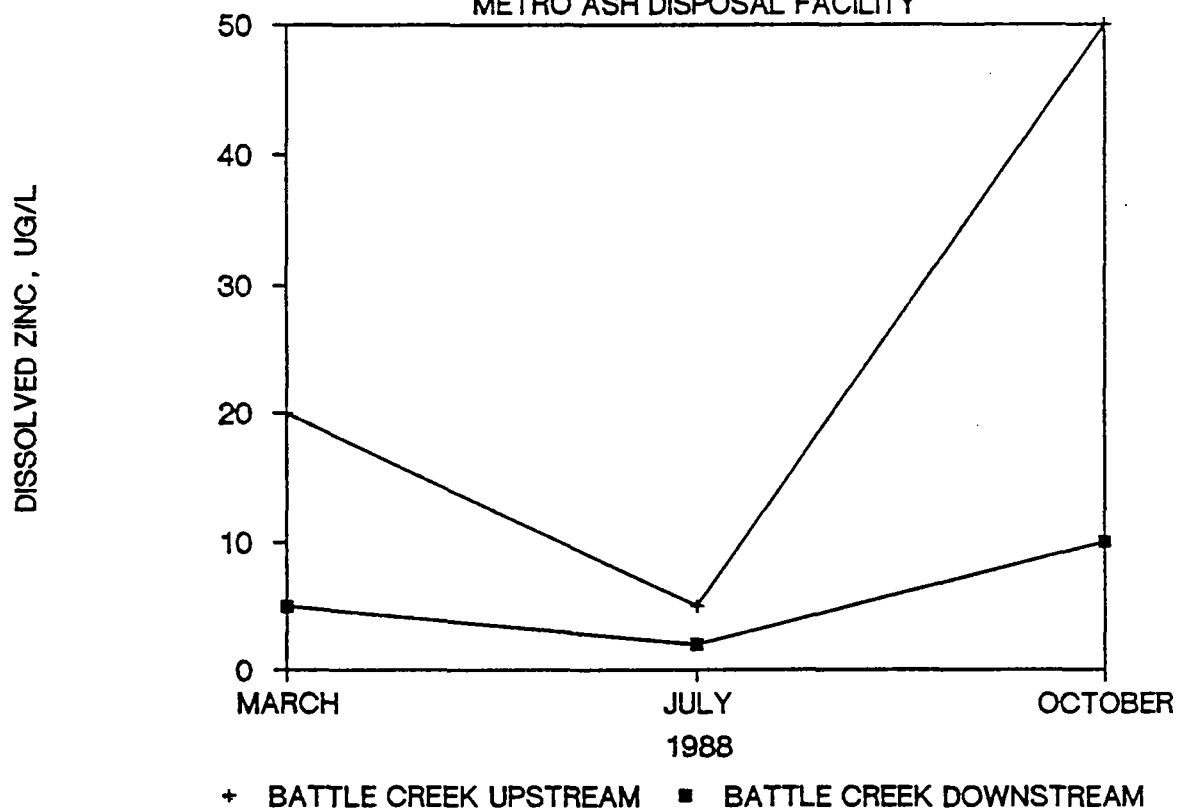
METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY



METROPOLITAN WASTE CONTROL COMMISSION

METRO ASH DISPOSAL FACILITY



MINNESOTA POLLUTION CONTROL AGENCY
Hazardous Waste Division
Agenda Item Control Sheet

BLS *MR*
MEETING DATE: March 28, 1989

Agenda # 20

APPEARANCE ITEM: YES: NO: X SCHEDULED TIME:

PREPARED BY: *RK JC RAS* Ray Bissonnette DATE MAILED: March 17, 1989

TITLE: Request For Approval Of A Stipulation Agreement Resolving Noncompliance
With Minnesota Hazardous Waste Rules By The Metropolitan Waste Control
Commission, St. Paul, Ramsey County

LOCATION: St. Paul Ramsey
CITY COUNTY

TYPE OF ACTION: Enforcement

RECOMMENDED ACTION: Approval

ISSUE STATEMENT:

The Minnesota Pollution Control Agency (MPCA) staff recommends that a proposed Stipulation Agreement (Agreement) with the Metropolitan Waste Control Commission (MWCC) be approved by the MPCA Board. The Agreement resolves alleged violations of the hazardous waste rules by the MWCC in failing to properly manage some drums of hazardous waste left behind by MWCC's contractors during the expansion of the Metropolitan Wastewater Treatment Plant (Plant). The Agreement requires the MWCC to pay a monetary penalty of Twelve Thousand Five Hundred Dollars (\$12,500) to the Environmental Response, Compensation and Compliance Fund for the alleged noncompliance.

ATTACHMENTS:

1. Stipulation Agreement
2. Location Map
3.
4.

MINNESOTA POLLUTION CONTROL AGENCY
Hazardous Waste Division
Hazardous Waste Section

Request For Approval Of A Stipulation Agreement Resolving Noncompliance With
Minnesota Hazardous Waste Rules By The Metropolitan Waste Control Commission,
St. Paul, Ramsey County

March 28, 1989

ISSUE STATEMENT

The Minnesota Pollution Control Agency (MPCA) staff recommends that a proposed Stipulation Agreement (Agreement) with the Metropolitan Waste Control Commission (MWCC) be approved by the MPCA Board. The Agreement resolves alleged violations of the hazardous waste rules by the MWCC in failing to properly manage some drums of hazardous waste left behind by MWCC's contractors during the expansion of the Metropolitan Wastewater Treatment Plant (Plant). The Agreement requires the MWCC to pay a monetary penalty of Twelve Thousand Five Hundred Dollars (\$12,500) to the Environmental Response, Compensation and Compliance Fund for the alleged noncompliance.

I. Background:

The Metropolitan Waste Control Commission (MWCC) operates and maintains the Metropolitan Wastewater Treatment Plant (Plant), located in St. Paul. In connection with the operation and maintenance of the Plant, the MWCC generates small quantities of hazardous wastes including toluene and xylene and is licensed by Ramsey County as a Small Quantity Generator.

On July 5, 1988, the Minnesota Pollution Control Agency (MPCA) received a complaint by telephone, which made two allegations: first, that the MWCC was using a toxic compressor oil without adequately warning or protecting its employees and also failed to report a spill of the oil; and second, that the MWCC had disposed of 30 drums of the toxic compressor oil and some other wastes under a grove of trees on Plant property.

MPCA staff conducted a complaint investigation at the Plant on July 5, 1988. While no evidence was found to support the allegations concerning the employee's exposure or spills of the compressor oil, MPCA staff discovered 39 containers of unknown materials, stored on pallets at the back of

the Plant property. MWCC staff indicated that the materials were generated by contractors who abandoned them when they left the Plant upon completion of work. Upon returning to the office, MPCA staff received a second telephone complaint which alleged that the containers had previously been buried on Plant property, but had recently been excavated by MWCC personnel prior to the MPCA staff's inspection on July 5, 1988.

On July 6, 1988, MPCA staff returned to the Plant. Further investigation of the area where the containers were found revealed several areas of darkly-stained soil, but no evidence that any containers had been buried or recently excavated. At that time, MPCA staff witnessed the movement of the containers to a secure, indoor storage areas located on the Plant property. On July 7, 1988, an independent testing company collected samples from the 39 containers which were found and from three areas of darkly-stained soil. The results of the analysis of these samples were submitted to the MPCA on September 6, 1988. The results indicated that 36 containers were filled with waste oil and two containers contained xylene and toluene with a flash point of less than 140 degrees Fahrenheit which classified the waste as an ignitable hazardous waste. One remaining container, a carboy, contained an acid with a pH of less than one, which caused it to be classified as a corrosive material. However, since the acid had not been used prior to the sample's collection, the material was not considered a waste and was subsequently used at the Plant. No solvents were detected in the three soil samples of stained soil, but detectable levels of lead, cadmium, and chromium were found. As a result of these findings, MPCA staff requested that the independent testing company analyze the sample of waste oil for the presence of lead, cadmium, and chromium.

On October 18, 1988, the MPCA issued a Notice of Violation (Notice) to the MWCC for eight violations of the Minnesota hazardous waste rules.

Specifically, the MWCC was cited for failure to evaluate its wastes, failure to label or date containers of hazardous waste, failure to store liquid hazardous wastes outdoors on a curbed, impermeable surface which is protected from unauthorized access or inadvertent damage, failure to close containers of hazardous waste, failure to protect containers of hazardous waste from exposure to direct sunlight or moisture, failure to conduct weekly inspections of the hazardous waste storage area, and failure to report or recover a release.

In response to the Notice, the MWCC directed the independent testing company to collect samples of soil which had been excavated from the container storage area, and analyze them for extraction procedure toxicity for lead, cadmium, and chromium. The samples were collected on October 31, 1988. The analytical results, submitted on December 2, 1988, revealed no detectable levels of cadmium or chromium, and 0.17 milligrams per liter (mg/l) of lead (hazardous waste criteria is 5.0 mg/l). Based on this information, the soil was classified nonhazardous.

In addition, the MWCC submitted a waste disposal plan on November 18, 1988, which outlined the facility location and methods used to recycle or dispose of all containers of waste. After receiving MPCA approval of the plan, the MWCC implemented the plan and completed disposal of the wastes on November 23, 1988.

Finally, the MWCC submitted a soil disposal plan for the soil excavated from the outdoor container storage area on December 2, 1988. MPCA staff reviewed the plan and approved it on January 25, 1989. The MWCC implemented the plan and completed disposal of the soil on February 6, 1989.

II. Discussion:

A draft Stipulation Agreement (Agreement) resolving the alleged violations of the hazardous waste rules was sent to the MWCC on January 6, 1989. Subsequent negotiations resulted in the attached Agreement. This Agreement represents a reasonable settlement of this situation. Since the MWCC has properly removed and disposed of the hazardous wastes, the only major component of this proposed Agreement is the payment of a Twelve Thousand Five Hundred Dollar (\$12,500) civil penalty into the Environmental Response, Compensation and Compliance Fund of the state of Minnesota.

A signed copy of the Agreement was not available at the time of the MPCA Board mailing. The MWCC will consider approval of the proposed Agreement at its March 21, 1989, meeting. Both MWCC and MPCA staffs anticipate that a signed Agreement will be available at the time of the MPCA Board meeting.

III. Conclusion:

Considering all the facts of the situation and the MWCC's cooperative and prompt response once the drums were discovered, the payment of a Twelve Thousand Five Hundred Dollar (\$12,500) civil penalty is a reasonable resolution of this situation.

IV. Recommendation:

The MPCA staff recommends that the MPCA Board authorize approval of the attached Agreement with the MWCC by adopting the suggested staff resolution.

SUGGESTED STAFF RESOLUTION

BE IT RESOLVED, that the Minnesota Pollution Control Agency hereby approves and adopts the attached Stipulation Agreement between the Minnesota Pollution Control Agency and the Metropolitan Waste Control Commission concerning the resolution of alleged noncompliance with Minnesota hazardous

waste rules and payment to the state Environmental Response, Compensation and Compliance Fund.

BE IT FURTHER RESOLVED, that in approving and adopting the Stipulation Agreement, the Minnesota Pollution Control Agency adopts the factual determinations and reasons set forth in the Minnesota Pollution Control Agency staff's memorandum dated March 28, 1989, which accompanied the staff's recommendation to the Minnesota Pollution Control Agency.

BE IT FURTHER RESOLVED, that the Chairman and Commissioner are hereby authorized to execute the Stipulation Agreement on behalf of the Minnesota Pollution Control Agency.

STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of
the Alleged Violations of the
Minnesota Hazardous Waste Rules
by The Metropolitan Waste Control Commission
St. Paul Minnesota

HAZARDOUS WASTE DIVISION
STIPULATION AGREEMENT

I. RECITALS

A. Parties. The parties to this Stipulation Agreement (Agreement) are the Minnesota Pollution Control Agency, (MPCA) and the Metropolitan Waste Control Commission (MWCC).

B. MPCA Authority. The MPCA is the agency of the State of Minnesota with the duty to administer and enforce the laws and rules relating to the prevention, control, or abatement of water, air, noise, and land pollution and to the generation, collection, transportation, storage, disposal, and other management of hazardous waste in the state. This Agreement is entered into pursuant to the authority vested in the MPCA by Minn. Stat. chs. 115 and 116 (1986).

C. Rules. The MPCA, after legal notice and hearing thereon, has adopted and has filed in the Office of the Secretary of State, rules regulating hazardous waste activities that have the force and effect of law and general application throughout the state of Minnesota.

D. Definitions. Unless otherwise explicitly stated, the definitions in Minn. Stat. § 116.06 (1986) and in Minn. Rules pt. 7045.0020 shall control the meaning of the terms in this Agreement.

E. Statement of Facts. The following constitutes a summary of the facts upon which this Agreement is based. This statement of facts is agreed upon for

-2-

the sole purpose of resolving the matters stated herein, and does not constitute an admission by either party.

1. The MWCC is a Metropolitan Agency, established pursuant to Minn. Stat. ch. 473, and operates and maintains the metropolitan disposal system and 11 wastewater treatment plants throughout the Twin Cities Metropolitan Area.

2. At its Metropolitan Wastewater Treatment Plant (Plant) located in St. Paul, Minnesota, the MWCC treats sewage which results in treated effluent water and wastewater treatment sludge. In connection with the operation and maintenance of the Plant, the MWCC generates wastes including toluene, xylene, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), paint thinners, mixed laboratory wastes, mineral spirits, laboratory solvents, and drain oil.

3. Toluene, xylene, MEK and MIBK are listed hazardous wastes due to ignitability and toxicity [Minn. Rules pt. 7045.0135 (1987)]. Mineral spirits is a characteristic hazardous waste due to ignitability [Minn. Rules pt. 7045.0131 subp. 2. (1987)].

4. Based upon the types and quantities of hazardous wastes generated annually by the Plant, it is considered a Small Quantity Generator, and is licensed by Ramsey County for such purposes.

5. On July 5, 1988, the MPCA received a complaint by telephone which alleged that:

a. The MWCC was using a toxic compressor oil without warning its employees about the hazards. In addition, the MWCC allegedly failed to report a spill of the compressor oil to the MPCA, and;

b. MWCC personnel had disposed of 30 drums of the toxic compressor oil and some acid wastes under a grove of trees on the east side of the Plant property.

-3-

6. A complaint investigation was conducted at the Plant by MPCA personnel on July 5, 1988. This investigation revealed the following:

- a. There was no evidence of any spills of compressor oil in the Compressor building. In addition, employees were notified about the oil's hazards by a Material Safety Data Sheet for the compressor oil, posted on the wall of the Compressor room. It indicated that the oil (tricresylphosphate) may contain a hazardous constituent, but nevertheless, the overall oil is not considered to be hazardous.
- b. An inspection of the area where the 30 drums of compressor oil and acid were alleged to be located revealed 36 drums and three carboys of material (containers), which were stored on pallets, in an area adjacent to a former contractor work building on the east side of the Plant property. Another 19 drums, which appeared to be empty, were stored on their sides along a fence to the south of the palletized containers. Many of the containers on the pallets appeared to be filled, some were being stored open, and all of them were missing labels and accumulation start dates. The MPCA staff requested that MWCC close the containers, move them to an indoor storage area, and then sample and analyze them to determine if any of them contained hazardous wastes.

7. Another telephone call, received by the MPCA on July 5, 1988, and subsequent to the initial investigation, alleged that the containers had previously been buried at the base of an electrical power tower near the area where the containers were found. In addition, the second call alleged that MWCC personnel had excavated the containers and placed them on the pallets a few days prior to the complaint investigation.

8. A second investigation, conducted at the Plant by MPCA personnel on July 6, 1988, revealed an area of soil, at the tower location, which appeared to be stained by unknown materials. The MPCA staff requested that MWCC sample and analyze the stained soil in addition to the contents of the containers. The July 6, 1988, investigation found no evidence to support the allegations that the containers had previously been buried at or near the tower

location.

9. On July 6, 1988, the containers containing unknown materials and the empty drums were moved indoors to Pole Barn #2, located on the Plant site, where they were placed in a curbed, plastic-coated temporary storage area. In addition, the MWCC closed and properly labelled all of the containers, and implemented a weekly inspection program for the temporary storage area.

10. On July 7, 1988, an independent testing company (Pace Laboratories) collected samples from three areas of darkly-stained soil at the tower location and from the 39 containers which were found to contain unknown materials. The results of the analysis of these samples were submitted to the MPCA on September 6, 1988. Those results indicated that two containers (drums) contained xylene and toluene and exhibited a flash point of less than 76° F. In addition, one container (a carboy) contained a liquid with a pH of less than one, causing it to be classified as a corrosive material. The results of the soil sampling indicated that no solvents were detected in the three soil samples. However, the soil samples were found to contain lead, cadmium and chromium. As a result of these findings, Pace Laboratories analyzed the oil samples for the presence of lead, cadmium, and chromium.

11. On October 18, 1988, the MPCA staff issued a Notice of Violation (Notice) to the MWCC for the violations listed in Section I.F.

12. In response to the October 18, 1988, Notice, on October 31, 1988, Pace Laboratories collected samples of soil, excavated from the tower location by MWCC, to be tested for extraction procedure toxicity for lead, cadmium and chromium. Analytical results, submitted to the MPCA on December 2, 1988, show that the soil contained no detectable levels of cadmium or chromium, and only low levels of lead. As a result, the soil has been classified non-hazardous.

-5-

13. In response to the October 18, 1988, Notice, the MWCC submitted a waste disposal plan on November 18, 1988, which outlined the facility location and method used to recycle or dispose of all wastes. The plan was implemented with work completed on November 23, 1988.

14. In response to the October 18, 1988, Notice, the MWCC submitted a disposal plan on December 2, 1988, which outlined the management method for the 24 cubic yards of excavated soil. Oral approval of this plan was granted by MPCA staff on January 25, 1989. The plan was implemented with work completed on February 6, 1989.

F. Alleged Violations. The MPCA alleges that the MWCC has violated the following Minnesota hazardous waste rules:

1. Minn. Rules pt. 7045.0219, subpart 5, item A, paragraph (1) (Supp. 1988) [SPECIAL REQUIREMENTS FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE, Management requirements,] which requires a small quantity generator to comply with Minn. Rules pt. 7045.0214, subpart 1 (1987) [EVALUATION OF WASTES, General requirement.]. Part 7045.0214, subpart 1 provides:

Any person who produces a waste within the State of Minnesota or any person who produces a waste outside the State of Minnesota that is managed within the State of Minnesota, must evaluate the waste to determine if it is hazardous. A material is determined to be a waste in accordance with the conditions specified under the definition of other waste material in part 7045.0020. Any waste evaluated and exempted under part 7045.0075 or 7045.0120 does not need to be reevaluated under this part.

The MPCA alleges that the MWCC failed to, at the time of generation, evaluate the containers of waste materials that were discovered on MWCC property during the course of the July 5, 1988, complaint investigation.

2. Minn. Rules pt. 7045.0219, subpart 5, item A, paragraph (3)

(1988), which requires a small quantity generator to comply with Minn. Rules pt. 7045.0275, subpart 2, (1988) [PROPER HAZARDOUS WASTE MANAGEMENT, Spills; duty to report.]. Part 7045.0275, subpart 2 provides:

Any person in control of a hazardous waste that spills, leaks, or otherwise escapes from a container, tank, or other containment system, including its associated piping, shall immediately notify the agency if the hazardous waste may cause pollution of the air, land resources, or waters of the state. The person shall use the agency's 24-hour telephone number, 612/296-8100.

The MPCA alleges that the MWCC failed to report to the MPCA the release of materials constituting hazardous waste from containers stored outdoors on MWCC property.

3. Minn. Rules pt. 7045.0219, subpart 5, item A, paragraph (3) (Supp. 1988), which requires a small quantity generator to comply with Minn. Rules pt. 7045.0275, subpart 3, (1987) [Spills; duty to recover.]. Part 7045.0275, subpart 3 provides:

Any person who generates a hazardous waste that spills, leaks, or otherwise escapes from a container, tank, or other containment system, including its associated piping, shall recover the hazardous waste as rapidly and as thoroughly as possible and shall immediately take other action as may be reasonably possible to protect human life and health and minimize or abate pollution of the water, air, or land resources of the state.

The MPCA alleges that the MWCC failed to take action to properly recover hazardous wastes that were released from containers stored outdoors on MWCC property.

4. Minn. Rules pt. 7045.0219, subpart 5, item A, paragraph (4) (1988), which requires a small quantity generator to comply with Minn. Rules pt. 7045.0292, subpart 1, items C, to F, (1987 and Supp. 1988), [ACCUMULATION OF HAZARDOUS WASTE, When allowed without a permit.]. Part 7045.0292, subpart 1 provides:

Subpart 1. A generator may accumulate hazardous waste on-site

-7-

without a permit or without having interim status if: . . .

C. The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container or the generator maintains a record of the accumulation starting date for each tank used for;

D. Each container and tank is properly labeled and marked according to part 7045.0270, subparts 1 and 5;

E. Outdoor storage areas are protected from unauthorized access and inadvertent damage from vehicles or equipment;

F. All containers in outdoor storage areas which hold free liquids are placed on a curbed surface which is impermeable to the wastes stored;

The MPCA alleges that the MWCC failed to properly label, date, protect and contain hazardous wastes stored outdoors on MWCC property.

5. Minn. Rules pt. 7045.0219, subpart 5, item A, paragraph (7) (Supp. 1988), which requires a small quantity generator to comply with Minn. Rules pt. 7045.0626, subpart 4, (1987) [USE AND MANAGEMENT OF CONTAINERS, Management of containers.]. Part 7045.0626, subpart 4 provides:

A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste....

The owner or operator shall store containers which if exposed to moisture or direct sunlight may create a hazardous condition or adversely affect the container's ability to contain the hazardous waste, in an area with overhead roofing or other covering that does not obstruct the visibility of the labels.

The MPCA alleges that the MWCC failed to properly manage its containers of hazardous waste stored outdoors on MWCC property by failing to protect them from direct sunlight or moisture, and by storing one of the drums open.

6. Minn. Rules pt. 7045.0219, subpart 5, item A, paragraph (7) (Supp. 1988), which requires a small quantity generator to comply with Minn.

Rules pt. 7045.0626, subpart 5, [Inspections.]. Part 7045.0626, subpart 5 provides:

The owner or operator shall inspect areas where containers are stored, at least weekly, looking for leaks and for leaks and for deterioration caused by corrosion or other factors.

The MPCA alleges that the MWCC failed to inspect containers of hazardous waste stored outdoors on MWCC property.

7. Minn. Rules pt. 7060.0600, subpart 2 (1987), [STANDARDS, Prohibition against discharge into unsaturated zone.] Part 7060.0600, subpart 2 provides:

No sewage, industrial waste, other waste, or other pollutants shall be allowed to be discharged to the unsaturated zone or deposited in such place, manner, or quantity that the effluent or residue therefrom, upon reaching the water table may actually or potentially preclude or limit the use of the underground waters as a potable water supply, nor shall any such discharge or deposit be allowed which may pollute the underground waters. All such possible sources of pollutants shall be monitored at the discharger's expense as directed by the MPCA.

The MPCA alleges that the MWCC failed to prevent the discharges of hazardous or industrial wastes to the unsaturated zone.

G. MWCC Position on Alleged Violations

The MWCC's position with regard to the violations of Minnesota Hazardous Waste Rules alleged by the MPCA in Section I.F. of this agreement is as follows:

1. As stated in the agreed upon facts, the containers in question appear to have been brought on the Plant property by contractors of the MWCC and placed there without the knowledge of the MWCC.
2. The materials found in one of the containers did not constitute a waste, because the container was unopened and the contents were subsequently used:
3. The MWCC maintains that, in order to comply with the regulations cited by the MPCA in Section I.F., Paragraphs 1 through 7, it is

-9-

necessary that a person be aware of the existence of the wastes in question.

4. Upon becoming aware of the existence of the wastes, the MWCC took expeditious and reasonable steps to comply with the applicable regulations.

The MWCC recognizes and acknowledges that the MPCA does not necessarily agree with the position of the MWCC stated herein.

Entry into this agreement does not constitute an admission on the part of the MWCC that the violations set forth by the MPCA in Paragraph I.F. have been committed by the MWCC.

II. AGREEMENT

NOW THEREFORE, the MPCA and the MWCC hereby agree and stipulate as follows:

A. Purpose of Agreement. The purpose of this Agreement is to resolve the violations alleged in Paragraph I.F and to assure that the MWCC complies with the laws and rules concerning the management of hazardous waste. In addition, this Agreement requires the MWCC to pay a monetary penalty for alleged past noncompliance with the Minnesota hazardous waste rules and comply with other provisions set forth below.

B. MWCC

1. Stipulated Civil Penalties.

Within thirty (30) days of the effective date of this Agreement the MWCC shall pay into the Environmental Response, Compensation and Compliance Fund of the Treasury of the State of Minnesota the sum of Twelve Thousand Five Hundred Dollars (\$12,500) as a civil penalty for alleged past noncompliance with the rules cited in paragraph I.F. of this Agreement.

2. Access. The MWCC shall allow the MPCA or any authorized member,

employee or agent thereof, upon presentation of credentials, access at reasonable times to the MWCC's property and facilities to obtain such information and documentation relevant to a determination that the MWCC is in compliance with this Agreement. This paragraph is not intended to limit the authority which the MPCA may have under any existing law or rule.

3. Retention of Records. The MWCC shall retain in its possession all records and documents related to the implementation of this Agreement. The MWCC shall preserve these records, documents, reports and data for a minimum of three years after the termination of this Agreement, despite any document retention policy to the contrary.

C. General Provisions.

1. Covenant Not to Sue. In consideration of the MWCC's performance of the terms, covenants, and agreements contained herein, the MPCA agrees that for such period of time as the MWCC is in compliance with this Agreement it shall stand in lieu of any administrative, legal and equitable remedies available to the MPCA regarding the alleged violation of Minnesota rules described in paragraph I.F. of this Agreement, except that nothing in this Agreement shall preclude the MPCA from exercising any administrative, legal or equitable remedies available to it to require additional efforts by the MWCC in the event that any further response is necessary to eliminate or abate any pollution or contamination or threat thereof resulting from the violations set forth in paragraph I.F.

2. Remedies of the Parties. The terms of this Agreement shall be legally enforceable by either party in a court of competent jurisdiction and each of the parties retains the right to assert any legal, equitable, or administrative right of action or defense which may be available by law in order to implement

-11-

or enforce the terms of this Agreement.

3. Liability and Obligation. Except as specifically set forth in paragraph II.C.1 of this Agreement, this Agreement shall not release the MWCC from any liability or obligation imposed by Minnesota statutes, rules, or local ordinances now in effect or which may be adopted in the future.

4. Emergency Powers. Nothing in this Agreement shall prevent the MPCA from exercising its emergency powers pursuant to Minnesota Stat. § 116.11 (1986) in the event conditions warranting such action shall arise.

5. Successors. This Agreement shall be binding upon the MWCC its successors and assigns, and upon the MPCA, its successors and assigns. Should the MWCC sell or otherwise convey or assign any of its right, title or interest in the facility, such conveyance shall not release the MWCC from any obligation imposed by this Agreement, unless the party to whom the right, title or interest has been transferred or assigned agrees in writing to fulfill the obligations of this Agreement and the MPCA Commissioner approves such transfer or assignment.

6. Amendments. This Agreement may be amended at any time by written agreement of the parties.

7. Hold Harmless Agreement. The MWCC agrees to indemnify, save and hold the MPCA, its agents and employees harmless from any and all claims or causes of action arising from or on account of acts or omissions of the MWCC, its officers, employees, agents, or contractors, in implementing the activities conducted pursuant to this Agreement. The MWCC shall not indemnify the MPCA nor save nor hold its employees and agents harmless from any claims or causes of action arising out of the acts or omission of the MPCA, or its employees and agents.

8. Other Claims. Nothing herein is intended to release any claims, causes of action or demands in law or equity against any person, firm, partnership or corporation not a signatory to this Agreement for any liability it may have arising out of, or relating to, the release of any pollutant or contaminant at, to, or from the facility. Neither the MWCC nor the MPCA shall be held as party to any contract entered into by the other party to implement the requirements of this Agreement.

9. Effective Date. This Agreement shall be effective upon the date it is signed by the MPCA Commissioner and the Chairperson of the MPCA Board.

10. MWCC Information. The MWCC shall not knowingly make any false statement, representation or certification in any record, report, plan or other document filed or required to be submitted to the MPCA under this Agreement. The MWCC shall immediately report to the MPCA any errors in such records, reports, plans or other documents upon discovery.

13. Termination. This Agreement shall terminate upon payment by the MWCC of the stipulated penalty required under paragraph II B.1.

-13-

BY THEIR SIGNATURES HEREON, THE UNDERSIGNED REPRESENT
THAT THEY HAVE AUTHORITY TO BIND THE PARTIES THEY
REPRESENT, THEIR AGENTS, CONTRACTORS, AND SUBSIDIARIES

Chair, Metropolitan Waste Control Commission

Date

Chief Administrator, Metropolitan
Waste Control Commission

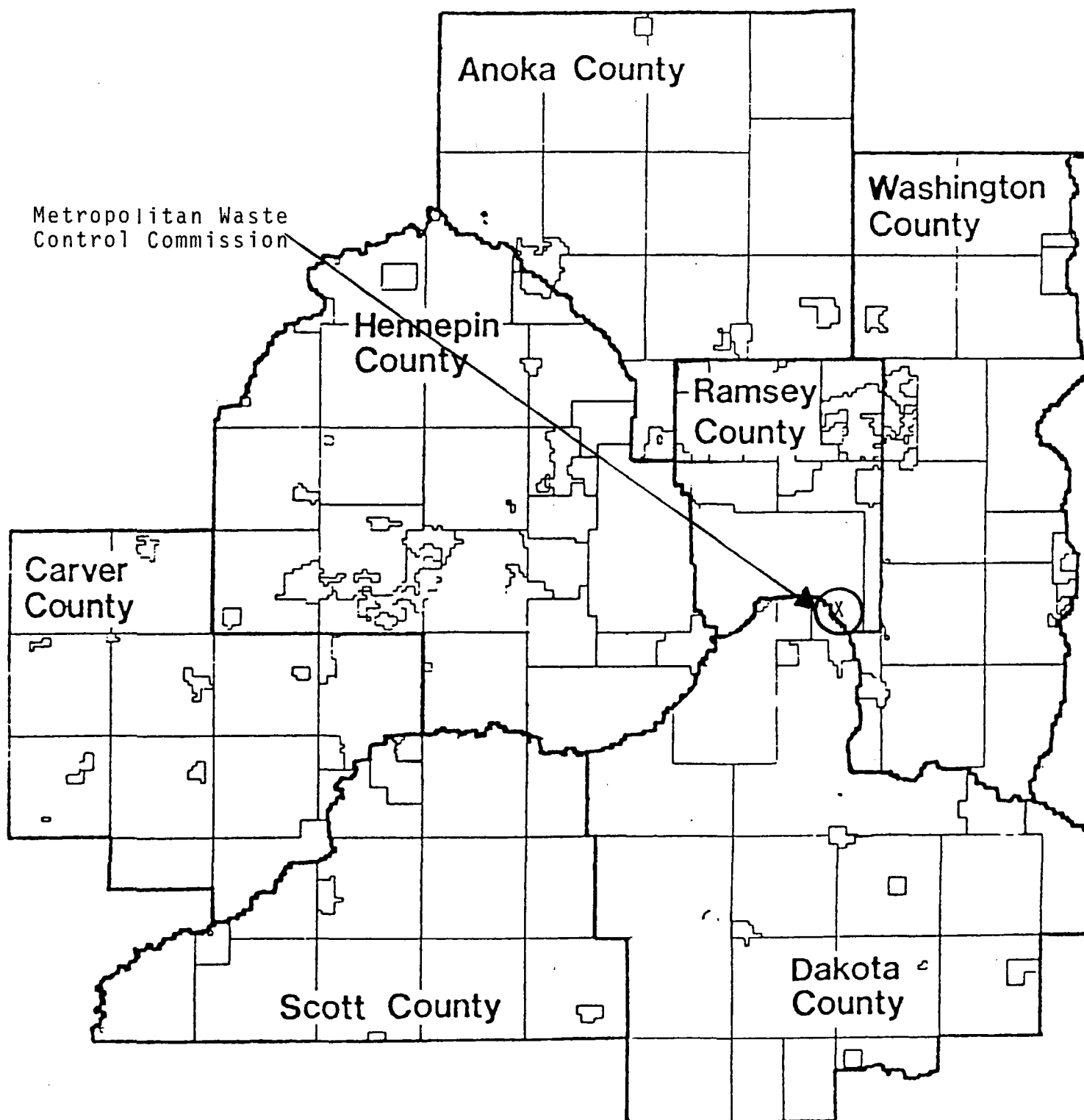
Date

Chairman, Minnesota Pollution
Control Agency, Board

Date

Commissioner, Minnesota Pollution
Control Agency

Date



**Metropolitan Waste Control Commission**

Mears Park Centre, 230 East Fifth Street, St. Paul, Minnesota 55101

612 222-8423

RECEIVED

JUN 01 89

MPCA, Ground Water
& Solid Waste Div.

May 31, 1989

Mr. Roger Bjork, Chief
Solid Waste Section
Division of Ground Water and Solid Waste
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

SUBJECT: Metro Ash Landfill, MPCA Permit NO. SW-189
Groundwater Monitoring Report

Dear Mr. Bjork:

As required under the operating conditions of Permit No. SW-189 for the MWCC Metro Ash Disposal Facility, groundwater monitoring wells are to be sampled and the results submitted to your Agency. Results of analyses for the Spring, 1989 are enclosed on your Standardized Lab Report.

If you have any questions regarding this report, please contact Ms. Rebecca Flood at 229-2073.

Sincerely,

Donald R. Madore
Director of Quality Control

DRM:RJF:jl

Enclosure

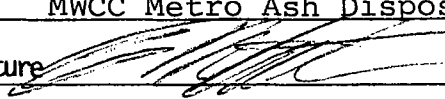
cc: R. Arbour



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road North
St. Paul, Minnesota 55155
612/296- 8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART ONE B - NON-SPECIFIC

(Please See Instructions on Back)

MPCA Permit Number SW-189		Date Samples Collected (YR/MO/DY) 89 / 04 / 19	
Facility Name MWCC Metro Ash Disposal Facility		Date Analysis Completed (YR/MO/DY) 89 / 05 / 08	
Collector Signature 	Representing MWCC		
Collector Comments Soluble metals samples are filtered & preserved in the field.			
Laboratory Name MWCC Central Laboratory		Phone 772-7110	
Laboratory Comments			

Laboratory Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	Sample Appearance, Odor, etc. parts	MPCA- Assigned Monitoring Point Number	Date Collected (yr, mo, dy)	Static Water Level Before Sampling 72019 (ft.)	Field Water Temperature °C 00010	Field Specific Conductance, umhos/cm (corrected to 25°C) 00094	Field pH 00400
a. 375-56	Well 1	Dty gry; gas bub; pgt odr;	60124	89,04,19	17.15	14.5	4275	6.45
b. 375-56	Well 2	Pale grn; pungent odor	60220	89,04,19	13.55	15.8	5682	6.78
c. 375-56	Well 3	Lt. grn; fuel oil odor	60324	89,04,19	14.05	12.3	5196	6.59
d. 375-56	Well 4	Green; pungent odor	60414	89,04,19	12.30	13.1	2515	6.61
e. 375-56	Well 5	Dty.grn; cloudy; pgt odor	60524	89,04,19	12.80	13.6	4637	6.98
DO NOT WRITE IN THIS SPACE 84002	Lab Specific Conductance umhos/cm (corrected to 25°C)	Lab pH	Ammonia Nitrogen mg/l	Chromium, Hexavalent ug/l	Static Water Elevation Before Sam- pling (ft.)			
a.	4568	6.42	49	< 3.4	691.99			
b.	5405	6.72	157	< 6.3	689.73			
c.	4816	6.52	140	< 6.2	692.14			
d.	2727	6.68	82	< 5.3	691.08			
e.	4371	6.74	8	< 2.9	689.90			

01273



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155
612/296- 8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART TWO - EXTENDED LIST, INORGANICS
(Must be Accompanied by Completed PART ONE Report)

(Please See Instructions on Back)

MPCA Permit Number	SW-189	Date Samples Collected (YR/MO/DY)	89 / 04 / 19
Facility Name	MWCC Metro Ash Disposal Facility	Date Analysis Completed (YR/MO/DY)	89 / 05 / 08
Comments			

Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	MPCA- Assigned Monitoring Point Number	Alkalinity* mg/l 00425	Dissolved Solids mg/l 70300	Suspended Solids, mg/l 00530	Arsenic Dissolved, ug/l 01000	Cadium, Dissolved, ug/l 01025	Calcium, Dissolved, mg/l 00915	Chromium, Total Dissolved, ug/l 01030
a.375-56	Well 1	60124	887			< 1.0	0.5		3.4
b.375-56	Well 2	60220	1630			3.6	< 0.1		6.3
c.375-56	Well 3	60324	1370			< 1.0	< 0.1		6.2
d.375-56	Well 4	60414	1070			< 1.0	0.6		5.3
e.375-56	Well 5	60524	1410			169.	0.1		2.9
Copper, Dissolved, ug/l 01040	Lead, Dissolved, ug/l 01049	Magnesium, Dissolved, mg/l 00925	Manganese, Dissolved, ug/l 01056	Mercury, Dissolved, ug/l 71890	Potassium, Dissolved, mg/l 00935	Sodium, Dissolved, mg/l 00930	Zinc, Dissolved, ug/l 01090	DO NOT WRITE IN THIS SPACE 84002	Nickel, Dissolved ug/l
a. 2.2	13.8			< 0.20			60.		27.5
b. < 1.0	9.2			< 0.20			40.		19.3
c. < 1.0	12.4			< 0.20			40.		21.0
d. < 1.0	9.5			< 0.20			230.		5.4
e. < 1.0	13.1			< 0.20			70.		44.4

PQ-00360-01 (04/84)

* as CaCO₃


01274



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road North
St. Paul, Minnesota 55155
612/296-8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART ONE B - NON-SPECIFIC

(Please See Instructions on Back)

MPCA Permit Number SW-189		Date Samples Collected (YR/MO/DY) 89 / 04 / 19	
Facility Name MWCC Metro Ash Disposal Facility		Date Analysis Completed (YR/MO/DY) 89 / 05 / 08	
Collector Signature 	Representing MWCC		
Collector Comments Soluble metals samples are filtered & preserved in field.			
Laboratory Name MWCC Central Laboratory		Phone 772-7110	
Laboratory Comments			

Laboratory Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	Sample Appearance, Odor, etc.	MPCA- Assigned Monitoring Point Number	Date Collected (yr, mo, dy)	Static Water Level Before Sampling 72019	Field Water Temperature °C 00010	Field Specific Conductance, umhos/cm (corrected to 25°C) 00094	Field pH 00400
a. 375-56	Upstream	Lt. green; no odor	30100	89,04,19	Grab	10.8	926	8.11
b. 375-56	Downstream	Lt. green; no odor	40100	89,04,19	Grab	6.7	1009	7.45
c.								
d.								
e.								
DO NOT WRITE IN THIS SPACE 84002	Lab Specific Conductance umhos/cm (corrected to 25°C)	Lab pH	Ammonia Nitrogen mg/l	Chromium, Hexavalent ug/l				
a.	907	8.0	0.25	<1.0				
b.	953	7.5	2.0	<1.0				
c.								
d.								
e.								

01275



Minnesota Pollution Control Agency
Ground Water and Solid Waste Division
520 Lafayette Road
St. Paul, Minnesota 55155
612/296- 8633

STANDARDIZED LAB REPORT - GROUND WATER AND SOLID WASTE DIVISION
PART TWO - EXTENDED LIST, INORGANICS
(Must be Accompanied by Completed PART ONE Report)

(Please See Instructions on Back)

MPCA Permit Number	SW-189	Date Samples Collected (YR/MO/DY)	89 / 04 / 19
Facility Name	MWCC Metro Ash Disposal Facility	Date Analysis Completed (YR/MO/DY)	89 / 05 / 08
Comments			

Laboratory Sample Identification	Monitoring Point Name (well 1, etc.)	MPCA- Assigned Monitoring Point Number	Alkalinity * mg/l 00425	Dissolved Solids mg/l 70300	Suspended Solids, mg/l 00530	Arsenic Dissolved, ug/l 01000	Cadium, Dissolved, ug/l 01025	Calcium, Dissolved, mg/l 00915	Chromium, Total Dissolved, ug/l 01030
a. 375-56	Upstream	30100	193			2.5	0.2		< 1.0
b. 375-56	Downstream	40100	210			2.4	0.4		1.0
c.									
d.									
e.									
Copper, Dissolved, ug/l 01040	Lead, Dissolved, ug/l 01049	Magnesium, Dissolved, mg/l 00925	Manganese, Dissolved, ug/l 01056	Mercury, Dissolved, ug/l 71890	Potassium, Dissolved, mg/l 00935	Sodium, Dissolved, mg/l 00930	Zinc, Dissolved, ug/l 01090	DO NOT WRITE IN THIS SPACE 84002	Nickel, Dissolved ug/l
a. < 1.0	1.9			< 0.20			20.		< 1.0
b. 1.8	1.3			< 0.20			20.		< 1.0
c.									
d.									
e.									

PQ-00360-01 (04/84)

* as CaCO₃

01276

Monitoring

Site: Metro Ash Disposal AreaRequest Number: 375-56Date: 4/18/89Sampler Used: ISCO Peristaltic PumpPersonnel: FW, AMRemarks: All wells purged of volumes determined by previous stabilization/recovery tests. Soluble metal samples are filtered & preserved in the field.

WELL NUMBER	TIME 2400	DEPTH (FEET)	TEMP °C	PHH	CND AT 25°C	OBSERVATIONS - COLOR, ODOR, PARTICULATES, ETC.
Well 1	0840	17.15				Pumped dry at 0847; dry depth 21.8', 0.8 gallon removed.
	1045		14.5	6.45	4275	pungent odor, Gas bubbles, Dirty Grey Color, some particulates
Well 5	0856	12.80				Pumped dry at 0903; dry depth 22.1', 1.5 gal removed; Recovery rate 0.5 gal/hr
	1105		13.6	6.98	4637	pungent odor, Cloudy Dirty Green
Downstream	0903	—	6.7	7.45	1009	No odor, Light Green Color
Well 3	1017	14.05	12.3	6.59	5196	Fuel oil smell, Light Green Color
Upstream	1135		10.8	8.11	926	Light Green Color, No odor
Well 4	1320	12.30	13.1	6.61	2515	pungent odor, Green Color
Well 2	1344	13.55	15.8	6.78	5682	pungent odor, Pale Green Color
FB #1	0839					
FB #2	1118					

SAMPLE RECEIPT

SAMPLE I.D.	RECEIVED BY	DATE	TIME	COMMENTS
FB #1		4/19/89	1445	2-250ml bottles, 1-150ml Jar, 1-Gallon Jug
FB #2				
Well 1				
Well 2				
Well 3				
Well 4				
Well 5				
Upstream Batch				
Downstream Batch				

RECOVERY RATE TESTSite: Seneca Ash Disposal AreaDate: 3/27/89Well Number: 1BApproximate Location: NE corner of Seneca Ash Disposal AreaInitial EvacuationInitial Depth: 31.80Volume Removed: $0.0408 \times 4 \times 2.9 = 0.47$ gallonEnd Time: 1020End Depth: 34.70pH: 7.32Conductance: 795

umhos/cm at 25° C.

Temperature: 12.2 °C

-Second evacuation must begin within two hours of the end time of the initial evacuation.

Second EvacuationBeginning Depth: 34.20Beginning Time: 1205pH: 7.46Conductance: 735

umhos/cm at 25° C.

Temperature: 14.3 °C

Recovery Rate (Volume/Time):

0.047 gal/hr

Notes:

Recovery Rate Volume = $0.0408 \times 4 \times 0.50 = 0.082$ gal0.082 gal0.047 gal/hr1.75 hr

Piper Eye L.F.

01279

Cliff,

3-13-90

I have tagged and clipped
the documents I need copied.
Thank you for your help.

If you have any questions or
problems, please call.

Thank you,
Lisa
Ryan

words -
Lisa Ryan - Legal Asst.

JOHN PAUL MARTIN
ATTORNEY AT LAW

PETERSEN, TEWS & SQUIRES
PROFESSIONAL ASSOCIATION
4800 IDS CENTER
80 SOUTH EIGHTH STREET
MINNEAPOLIS, MINNESOTA 55402-2208

TELEPHONE (612) 344-1600
TELECOPIER (612) 344-1650

SITE NAME: PIG EYE LANDFILL

DCN: 01280

PAGES: 10

DATE: 8-10-90

SOURCE: _____

AUTHOR: MPCA

RECIPIENT: PORTAV

TITLE: MPCA R Information Request Letter Re: Pig's Eye

SUMMARY: This document is an information request letter from MPCA. The letter requires PORTAV to provide information about Pig's Eye + Fish Hatchery Dumps.

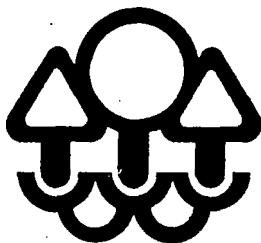
PRP's PORTAV

TRANSPORTERS _____

CODED BY HL

ENTERED BY _____

Q A BY _____



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300

01280



**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

August 10, 1990

Port Authority of St. Paul
1900 Landmark Tower
345 St. Peter Street
St. Paul, Minnesota 55102

Dear Sir or Madam:

RE: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

The Minnesota Pollution Control Agency (MPCA) is responsible for implementing the Minnesota Environmental Response and Liability Act (MERLA). MERLA is the cornerstone of the State's efforts to investigate and remedy hazardous waste sites where contamination threatens public health or the environment.

Pursuant to MERLA, the MPCA staff has identified a release or threatened release of hazardous substances or pollutants or contaminants at the Pig's Eye Dump/Fish Hatcheries Dump, located in Ramsey County, Minnesota. The MPCA staff is in the process of identifying persons who may be responsible for this release or threatened release under MERLA because they 1) owned or operated the facility; 2) arranged for disposal; or 3) arranged for transport for disposal, of hazardous wastes or pollutants or contaminants at the above-referenced site.

The MPCA staff has reason to believe that the St. Paul Port Authority is a responsible person under MERLA, and may have information that is relevant to the release or threatened release from the Pig's Eye Dump/Fish Hatcheries Dump. To facilitate the Agency's investigation, the MPCA staff is sending you the enclosed Requirement To Provide Information (RPI). As the recipient of this RPI, you have the legal duty under State law to provide information requested by the MPCA that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants. Information obtained in response to the RPI will be used by MPCA staff in carrying out their responsibilities under MERLA, including the identification of other responsible parties for the release or threatened release. This is a first Questionnaire; in the future it may be necessary to supplement the information available to MPCA with additional Questionnaires.

Since obtaining this information is an important initial step in the process, your response to the enclosed Questionnaire needs to be submitted within ninety (90) days from the date of the RPI. Normally, the deadline is 30 days. Because of the significant numbers of responsible persons likely to be involved, this deadline has been extended to 90 days. The information in your response is vital and will allow us to protect public health and the environment.

St. Paul Port Authority
Page 2

Therefore, failure to provide timely, complete and accurate answers to the Questionnaire may result in legal actions by the State of Minnesota to compel disclosure.

Attachment 1 contains instructions for completing the Questionnaire. A list of definitions of words used in the Questionnaire may be found in Attachment 2. Please review both Attachments prior to answering the Questionnaire.

The complete Questionnaire and all relevant documents should be mailed to:

Cathy O'Connell, Project Manager
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Should you have any questions regarding this letter and the enclosed RPI and Questionnaire, please contact me at (612) 296-7227.

Sincerely,

Beth Aschinger
for

Cathy O'Connell
Project Manager
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division

CO:kkn

Enclosures

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of
Pig's Eye Dump/Fish Hatcheries Dump

REQUIREMENT TO
PROVIDE INFORMATION
PURSUANT TO THE MINNESOTA
ENVIRONMENTAL RESPONSE
AND LIABILITY ACT

The Minnesota Pollution Control Agency (MPCA) staff has reason to believe that the Port Authority of St. Paul is a responsible person under the Minnesota Environmental Response and Liability Act (MERLA) and may have information that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants from the above-referenced site. You are required by Minn. Stat. § 115B.17, subd. 3 (1988), to provide information to the MPCA and its employees that is relevant to the release or threatened release:

Any person who the agency has reason to believe is responsible for a release or threatened release as provided in section 115B.03, or who is the owner of real property where the release or threatened release is located or where response actions are proposed to be taken, when requested by the agency, or any member, employee or agent thereof who is authorized by the agency, shall furnish the agency any information which that person may have or may reasonably obtain which is relevant to the release or threatened release.

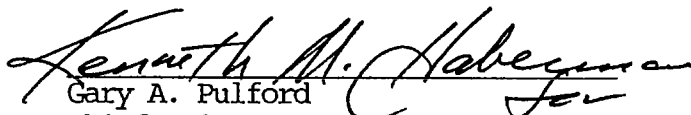
The MPCA is also authorized by Minn. Stat. § 115B.17, subd. 4(a)(1988), to examine and copy any books, papers, records, memoranda or data of any person who has a duty to provide information under Section 115B.17, subd. 3.

In addition, the MPCA is authorized to conduct investigations in conjunction with its duties to enforce the State's laws on water and air pollution. Minnesota Statutes, Section 115.03, subd. 1(h)(1988), Section 116.07, subd. 9(c)(1988).

You are hereby directed to answer the attached questionnaire and to provide any relevant documents within ninety (90) days from the date of this Requirement to Provide Information. Failure to respond or to provide complete and accurate answers to the enclosed questions may result in legal action by the State of Minnesota to compel disclosure.

Date: 8/10/90

MINNESOTA POLLUTION CONTROL AGENCY


Gary A. Pulford
Chief, Site Response Section
Ground Water and Solid Waste Division

QUESTIONNAIRE FOR PIG'S EYE DUMP/FISH HATCHERIES DUMP
AND
REQUEST FOR PRODUCTION OF DOCUMENTS

1. Identify the full legal name, address and phone number of the business or governmental entity, hereinafter referred to as "business."
2. How many years has the business been in operation?
3. Identify the names and current addresses and telephone numbers of all current and past owner(s) of the business.
4. Provide a map indicating that portion of the site(s) owned or operated by the business. Include leases.
5. Identify all MPCA, Minnesota Department of Health and other environmental permits issued by Federal, State, county, city or other governmental authorities that the business holds and the effective dates for such permits.
6. Identify and list all businesses and industrial customers whose garbage and/or hazardous wastes or pollutants or contaminants were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
7. Identify and list all transporters of garbage and/or hazardous wastes or pollutants or contaminants that were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
8. Provide a map indicating the portions of the site(s) dedicated to specific uses or specific businesses.
9. How was the garbage and/or hazardous wastes or pollutants or contaminants picked up from businesses or industrial customers stored (e.g., in drums, barrels, dumpsters) for pick up? For transport?
10. How was the garbage and/or hazardous wastes or pollutants or contaminants disposed of (e.g., drums buried or emptied and returned) at the site(s)?
11. Identify all persons whom the business consulted in the preparation of the response to the Questionnaire, including their current addresses and telephone numbers and relationship to the business.
12. Identify any other persons who may be able to provide a more detailed or complete response to the Questionnaire or who may be able to provide additional relevant documents.

Attachment 1
Instructions for Questionnaire

1. ENCLOSE WITH YOUR RESPONSE TO THE QUESTIONNAIRE A NOTARIZED AFFIDAVIT FROM YOU OR AN AUTHORIZED OFFICIAL REPRESENTING YOUR BUSINESS ATTESTING TO THE FACT (A) THAT A DILIGENT SEARCH FOR RECORDS RELEVANT TO THIS QUESTIONNAIRE HAS BEEN COMPLETED AND (B) THAT A DILIGENT INTERVIEW PROCESS HAS BEEN CONDUCTED WITH PRESENT AND FORMER EMPLOYEES WHO MAY HAVE KNOWLEDGE OF WASTE GENERATION OR OTHER WASTE MANAGEMENT PRACTICES AT PIG'S EYE DUMP/FISH HATCHERIES DUMP FROM 1956 TO 1972. ANY INFORMATION THAT YOU PROVIDE IN RESPONSE TO THE QUESTIONNAIRE THAT IS BASED ON YOUR PERSONAL KNOWLEDGE, OR THE PERSONAL KNOWLEDGE OF YOUR EMPLOYEES, AGENTS, OR OTHER REPRESENTATIVES MUST BE SUBMITTED IN THE FORM OF A NOTARIZED AFFIDAVIT.
2. Review the list of definitions in Attachment 2.
3. Make a separate written response to each question. Do NOT leave any blank questions.
4. Number each of your answers according to the corresponding numbered question. For each document produced in response to the Requirement to Provide Information, identify the number of the question to which it responds on the document or in some other reasonable manner.
5. In answering each question, identify all sources of information consulted in preparing the response.
6. You are required to respond to each question on the basis of any and all information and documents in your possession, custody, or control or the possession, custody, or control of your current or former employees, agents, or contractors, or other person who conducted business on your behalf. Furnish information that is available to you regardless of whether it is based on personal knowledge, and regardless of source.
7. Information necessary to adequately respond to a question may not be known or available on the date your response is submitted. If this is the case, you have a continuing duty to provide the information when it becomes known or available, and to submit correct information that was submitted in the response and later learned to be wrong.
8. Respond in writing to each question even if information on which your answer is based has not been recorded in any particular document.
9. If any requested documents have been transferred voluntarily or involuntarily to others or have been otherwise disposed of, identify (a) each document; (b) the person to whom it was transferred; and (c) the date of the transfer or disposal.
10. You have a duty to provide the requested information even if the information may be considered confidential or a trade secret. If you provide any information that relates to sales figures, processes or methods of production unique to your business, or information that would tend to affect adversely the competitive position of your business if generally known, you may certify this claim at the time you submit your response and the

-2-

information so certified will be held nonpublic as provided in Minnesota Statutes, Section 115B.17, subdivision 5 (1988). Any such certification must specifically identify the information that you believe qualifies for nonpublic treatment. If no such certification accompanies the information when it is received by the MPCA, it may be made available to the public by the MPCA without further notice to you.

Attachment 2

Definitions for Questionnaire

For the purpose of your answers to the Questionnaire, the following definitions shall apply:

1. PORT AUTHORITY OF ST. PAUL. "Port Authority of St. Paul" includes any agent, subcontractor, or any other person who conducted or did business on behalf of "Port Authority of St. Paul."
2. Pig's Eye Dump/Fish Hatcheries Dump. "Pig's Eye Dump/Fish Hatcheries Dump" means the property located 1/2 mile southeast of the intersection of Warner Road and Childs Road (an old report lists the address as 1150 Pig's Eye Lake Road) [Ramsey County, Section 10, T28N, R22W] and the property located at the intersection of Warner Road and Childs Road (an old report simply gives the address as Warner Road) [Ramsey County, Section 3, T28N, R22W], St. Paul, Minnesota.
3. YOU; BUSINESS. The terms "you" and "business," means the addressee of the Requirement to Provide Information.
4. DOCUMENT. "Document" means information preserved in any manner which is in the possession of or may be reasonably obtained by the addressee, including information in the possession of the addressee's directors, officers, shareholders, partners, managers, employees, subcontractors, trustees, successors, assigns, and agents, regardless of the location of the document or its classification as privileged or confidential. The term "document" includes but is not limited to the following: correspondence, contracts, agreements, memoranda, telegrams, reports, assignments, personnel records, record books, manifests, logs, scrap-books, diaries, minutes, plans, drawings, photographs, tapes, computer discs, invoices, checks, surveys and analyses.
5. IDENTIFY/Individual. The term "identify" means, with respect to an "individual," to set forth the person's full name, present or last known

address, name of the employer, and a description of the job responsibilities of the person.

6. IDENTIFY/Business. The term "identify" means, with respect to a governmental entity, corporation, sole proprietorship, partnership, or other association or business entity, to set forth its full name, address, legal form (for example, corporation, partnership, etc.), and a brief description of the product or service offered by the business.

7. IDENTIFY/Document. The term "identify" means, with respect to a document to provide its customary business description, its date, its number if any (for example, invoice or purchase order number) as well as its author, addresser, addressee and/or recipient, and the substance or the subject matter.

8. PERSON. "Person," as defined in Minnesota Statutes, Section 115B.02, subdivision 12 (1988) means any individual, partnership, association, public or private corporation or other entity, including the United States government, any interstate body, the state and any agency, department or political subdivision of the state.

9. FACILITY. "Facility," as defined in Minnesota Statutes, Section 115b.02, subdivision 5 (1988) means:

(a) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft;

(b) Any watercraft of any description, or other artificial contrivance used or capable of being used as a means of transportation on water; or

-3-

(c) Any site or area where a hazardous substance, or a pollutant or contaminant, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Facility" does not include any consumer product in consumer use.

10. HAZARDOUS SUBSTANCE. "Hazardous substance," as defined in Minnesota Statutes, Section 115B.02, subd. 8 (1988), means:

(a) Any commercial chemical designated pursuant to the Federal Water Pollution Control Act, under United States Code, title 33, section 1321 (b) (2) (A);

(b) Any hazardous air pollutant listed pursuant to the Clean Air Act, under United States Code, title 42, section 7412, and

(c) Any hazardous waste.

"Hazardous substance" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas, nor does it include petroleum, including crude oil or any fraction thereof which is not otherwise a hazardous waste.

11. HAZARDOUS WASTE. "hazardous waste," as defined in Minnesota Statutes, Section 115B.02, subdivision 9 (1988) means:

(a) Any hazardous waste as defined in section 116.06, subd. 13, and any substance identified as a hazardous waste pursuant to rules adopted by the agency under section 116.07; and

(b) Any hazardous waste as defined in the Resource Conservation and Recovery Act, under United States Code, title 42, section 6903, which is listed or has the characteristics identified under United States Code, title 42,

-4-

section 6921, not including any hazardous waste, the regulation of which has been suspended by Act of Congress.

12. POLLUTANT OR CONTAMINANT. "Pollutant or contaminant," as defined in Minnesota Statutes, Section 115B.02, subdivision 13 (1988) means any element, substance, compound, mixture, or agent, other than a hazardous substance, which after release from a facility and upon exposure of, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in the organisms or their offspring.

"Pollutant or contaminant" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas.

13. SOLID WASTE. "Solid waste," as defined in Minnesota Rules, Part 7035.0300, subpart 100 (1988) means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semi-solid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste, water effluents or discharges which are point sources subject to permits under

-5-

section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

14. RELEASE. "Release," as defined in Minnesota Statutes, Section 115B.02, subdivision 15 (1988) means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

"Release" does not include:

(a) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(b) Release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in The Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal nuclear regulatory commission under United States Code, title 42, section 2210.

(c) Release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a) or 7942(a); or

(d) Any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18A.21, subd. 25.

SITE NAME: PIG EYE LANDFILL

DCN: 01291

PAGES: 11

DATE: 8-10-90

SOURCE: _____

AUTHOR: MPCA

RECIPIENT: CMC Real Estate Corporation

TITLE: MPCA Information Request Letter re: Pig's Eye

SUMMARY: This document is an information request
letter from MPCA. The letter requires
CMC Real Estate Corporation to provide
information about Pig's Eye & Fish
Hatchery Dumps

PRP's CMCREC

TRANSPORTERS _____

CODED BY kr?

ENTERED BY _____

Q A BY _____

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. ☐ Restricted Delivery
↑(Extra charge)↑ ↑(Extra charge)↑

3. Article Addressed to: CMC Real Estate Corporation % CT Corporation System 405-2nd Ave. S. Mpls., MN 55401	4. Article Number P 666 067 180
5. Signature — Addressee X	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
6. Signature — Agent X	Always obtain signature of addressee or agent and DATE DELIVERED.
7. Date of Delivery AUG 12 1990	8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

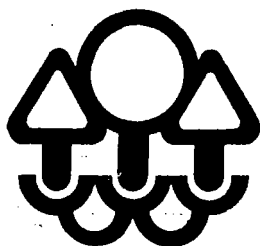
P 666 067 180

RECEIPT FOR CERTIFIED MAILNO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	CMC Real Estate
Street and No.	405-2nd Ave. S.
P.O., State and ZIP Code	Mpls., MN 55401
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1985



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

August 10, 1990

CMC Real Estate Corporation
c/o CT Corporation System, Inc.
405 - 2nd Avenue South
Minneapolis, Minnesota 55401

Dear Sir or Madam:

RE: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

The Minnesota Pollution Control Agency (MPCA) is responsible for implementing the Minnesota Environmental Response and Liability Act (MERLA). MERLA is the cornerstone of the State's efforts to investigate and remedy hazardous waste sites where contamination threatens public health or the environment.

Pursuant to MERLA, the MPCA staff has identified a release or threatened release of hazardous substances or pollutants or contaminants at the Pig's Eye Dump/Fish Hatcheries Dump, located in Ramsey County, Minnesota. The MPCA staff is in the process of identifying persons who may be responsible for this release or threatened release under MERLA because they 1) owned or operated the facility; 2) arranged for disposal; or 3) arranged for transport for disposal, of hazardous wastes or pollutants or contaminants at the above-referenced site.

The MPCA staff has reason to believe that CMC Real Estate Corporation is a responsible person under MERLA, and may have information that is relevant to the release or threatened release from the Pig's Eye Dump/Fish Hatcheries Dump. To facilitate the Agency's investigation, the MPCA staff is sending you the enclosed Requirement To Provide Information (RPI). As the recipient of this RPI, you have the legal duty under State law to provide information requested by the MPCA that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants. Information obtained in response to the RPI will be used by MPCA staff in carrying out their responsibilities under MERLA, including the identification of other responsible parties for the release or threatened release. This is a first Questionnaire; in the future it may be necessary to supplement the information available to MPCA with additional Questionnaires.

Since obtaining this information is an important initial step in the process, your response to the enclosed Questionnaire needs to be submitted within ninety (90) days from the date of the RPI. Normally, the deadline is 30 days. Because of the significant numbers of responsible persons likely to be involved, this deadline has been extended to 90 days. The information in your response is vital and will allow us to protect public health and the environment.

Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester

Equal Opportunity Employer

Printed on Recycled Paper

CMC Real Estate Corporation
Page 2

Therefore, failure to provide timely, complete and accurate answers to the Questionnaire may result in legal actions by the State of Minnesota to compel disclosure.

Attachment 1 contains instructions for completing the Questionnaire. A list of definitions of words used in the Questionnaire may be found in Attachment 2. Please review both Attachments prior to answering the Questionnaire.

The complete Questionnaire and all relevant documents should be mailed to:

Cathy O'Connell, Project Manager
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Should you have any questions regarding this letter and the enclosed RPI and Questionnaire, please contact me at (612) 296-7227.

Sincerely,

Beth Archinger
for

Cathy O'Connell
Project Manager
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division

CO:km

Enclosures

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of
Pig's Eye Dump/Fish Hatcheries Dump

REQUIREMENT TO
PROVIDE INFORMATION
PURSUANT TO THE MINNESOTA
ENVIRONMENTAL RESPONSE
AND LIABILITY ACT

The Minnesota Pollution Control Agency (MPCA) staff has reason to believe that CMC Real Estate Corporation is a responsible person under the Minnesota Environmental Response and Liability Act (MERLA) and may have information that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants from the above-referenced site. You are required by Minn. Stat. § 115B.17, subd. 3 (1988), to provide information to the MPCA and its employees that is relevant to the release or threatened release:

Any person who the agency has reason to believe is responsible for a release or threatened release as provided in section 115B.03, or who is the owner of real property where the release or threatened release is located or where response actions are proposed to be taken, when requested by the agency, or any member, employee or agent thereof who is authorized by the agency, shall furnish the agency any information which that person may have or may reasonably obtain which is relevant to the release or threatened release.

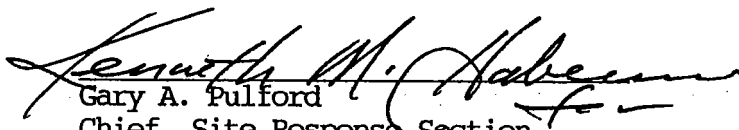
The MPCA is also authorized by Minn. Stat. § 115B.17, subd. 4(a)(1988), to examine and copy any books, papers, records, memoranda or data of any person who has a duty to provide information under Section 115B.17, subd. 3.

In addition, the MPCA is authorized to conduct investigations in conjunction with its duties to enforce the State's laws on water and air pollution. Minnesota Statutes, Section 115.03, subd. 1(h)(1988), Section 116.07, subd. 9(c)(1988).

You are hereby directed to answer the attached questionnaire and to provide any relevant documents within ninety (90) days from the date of this Requirement to Provide Information. Failure to respond or to provide complete and accurate answers to the enclosed questions may result in legal action by the State of Minnesota to compel disclosure.

Date: 5/10/90

MINNESOTA POLLUTION CONTROL AGENCY


Gary A. Fulford
Chief, Site Response Section
Ground Water and Solid Waste Division

QUESTIONNAIRE FOR PIG'S EYE DUMP/FISH HATCHERIES DUMP
AND
REQUEST FOR PRODUCTION OF DOCUMENTS

1. Identify the full legal name, address and phone number of the business or governmental entity, hereinafter referred to as "business."
2. How many years has the business been in operation?
3. Identify the names and current addresses and telephone numbers of all current and past owner(s) of the business.
4. Provide a map indicating that portion of the site(s) owned or operated by the business. Include leases.
5. Identify all MPCA, Minnesota Department of Health and other environmental permits issued by Federal, State, county, city or other governmental authorities that the business holds and the effective dates for such permits.
6. Identify and list all businesses and industrial customers whose garbage and/or hazardous wastes or pollutants or contaminants were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
7. Identify and list all transporters of garbage and/or hazardous wastes or pollutants or contaminants that were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
8. Provide a map indicating the portions of the site(s) dedicated to specific uses or specific businesses.
9. How was the garbage and/or hazardous wastes or pollutants or contaminants picked up from businesses or industrial customers stored (e.g., in drums, barrels, dumpsters) for pick up? For transport?
10. How was the garbage and/or hazardous wastes or pollutants or contaminants disposed of (e.g., drums buried or emptied and returned) at the site(s)?
11. Identify all persons whom the business consulted in the preparation of the response to the Questionnaire, including their current addresses and telephone numbers and relationship to the business.
12. Identify any other persons who may be able to provide a more detailed or complete response to the Questionnaire or who may be able to provide additional relevant documents.

Attachment 1
Instructions for Questionnaire

1. ENCLOSE WITH YOUR RESPONSE TO THE QUESTIONNAIRE A NOTARIZED AFFIDAVIT FROM YOU OR AN AUTHORIZED OFFICIAL REPRESENTING YOUR BUSINESS ATTESTING TO THE FACT (A) THAT A DILIGENT SEARCH FOR RECORDS RELEVANT TO THIS QUESTIONNAIRE HAS BEEN COMPLETED AND (B) THAT A DILIGENT INTERVIEW PROCESS HAS BEEN CONDUCTED WITH PRESENT AND FORMER EMPLOYEES WHO MAY HAVE KNOWLEDGE OF WASTE GENERATION OR OTHER WASTE MANAGEMENT PRACTICES AT PIG'S EYE DUMP/FISH HATCHERIES DUMP FROM 1956 TO 1972. ANY INFORMATION THAT YOU PROVIDE IN RESPONSE TO THE QUESTIONNAIRE THAT IS BASED ON YOUR PERSONAL KNOWLEDGE, OR THE PERSONAL KNOWLEDGE OF YOUR EMPLOYEES, AGENTS, OR OTHER REPRESENTATIVES MUST BE SUBMITTED IN THE FORM OF A NOTARIZED AFFIDAVIT.
2. Review the list of definitions in Attachment 2.
3. Make a separate written response to each question. Do NOT leave any blank questions.
4. Number each of your answers according to the corresponding numbered question. For each document produced in response to the Requirement to Provide Information, identify the number of the question to which it responds on the document or in some other reasonable manner.
5. In answering each question, identify all sources of information consulted in preparing the response.
6. You are required to respond to each question on the basis of any and all information and documents in your possession, custody, or control or the possession, custody, or control of your current or former employees, agents, or contractors, or other person who conducted business on your behalf. Furnish information that is available to you regardless of whether it is based on personal knowledge, and regardless of source.
7. Information necessary to adequately respond to a question may not be known or available on the date your response is submitted. If this is the case, you have a continuing duty to provide the information when it becomes known or available, and to submit correct information that was submitted in the response and later learned to be wrong.
8. Respond in writing to each question even if information on which your answer is based has not been recorded in any particular document.
9. If any requested documents have been transferred voluntarily or involuntarily to others or have been otherwise disposed of, identify (a) each document; (b) the person to whom it was transferred; and (c) the date of the transfer or disposal.
10. You have a duty to provide the requested information even if the information may be considered confidential or a trade secret. If you provide any information that relates to sales figures, processes or methods of production unique to your business, or information that would tend to affect adversely the competitive position of your business if generally known, you may certify this claim at the time you submit your response and the

-2-

information so certified will be held nonpublic as provided in Minnesota Statutes, Section 115B.17, subdivision 5 (1988). Any such certification must specifically identify the information that you believe qualifies for nonpublic treatment. If no such certification accompanies the information when it is received by the MPCA, it may be made available to the public by the MPCA without further notice to you.

Attachment 2

Definitions for Questionnaire

For the purpose of your answers to the Questionnaire, the following definitions shall apply:

1. CMC REAL ESTATE CORPORATION. "CMC Real Estate Corporation" includes any agent, subcontractor, or any other person who conducted or did business on behalf of "CMC Real Estate Corporation."

2. Pig's Eye Dump/Fish Hatcheries Dump. "Pig's Eye Dump/Fish Hatcheries Dump" means the property located 1/2 mile southeast of the intersection of Warner Road and Childs Road (an old report lists the address as 1150 Pig's Eye Lake Road) [Ramsey County, Section 10, T28N, R22W] and the property located at the intersection of Warner Road and Childs Road (an old report simply gives the address as Warner Road) [Ramsey County, Section 3, T28N, R22W], St. Paul, Minnesota.

3. YOU; BUSINESS. The terms "you" and "business," means the addressee of the Requirement to Provide Information.

4. DOCUMENT. "Document" means information preserved in any manner which is in the possession of or may be reasonably obtained by the addressee, including information in the possession of the addressee's directors, officers, shareholders, partners, managers, employees, subcontractors, trustees, successors, assigns, and agents, regardless of the location of the document or its classification as privileged or confidential. The term "document" includes but is not limited to the following: correspondence, contracts, agreements, memoranda, telegrams, reports, assignments, personnel records, record books, manifests, logs, scrap-books, diaries, minutes, plans, drawings, photographs, tapes, computer discs, invoices, checks, surveys and analyses.

5. IDENTIFY/Individual. The term "identify" means, with respect to an "individual," to set forth the person's full name, present or last known

address, name of the employer, and a description of the job responsibilities of the person.

6. IDENTIFY/Business. The term "identify" means, with respect to a governmental entity, corporation, sole proprietorship, partnership, or other association or business entity, to set forth its full name, address, legal form (for example, corporation, partnership, etc.), and a brief description of the product or service offered by the business.

7. IDENTIFY/Document. The term "identify" means, with respect to a document to provide its customary business description, its date, its number if any (for example, invoice or purchase order number) as well as its author, addresser, addressee and/or recipient, and the substance or the subject matter.

8. PERSON. "Person," as defined in Minnesota Statutes, Section 115B.02, subdivision 12 (1988) means any individual, partnership, association, public or private corporation or other entity, including the United States government, any interstate body, the state and any agency, department or political subdivision of the state.

9. FACILITY. "Facility," as defined in Minnesota Statutes, Section 115b.02, subdivision 5 (1988) means:

(a) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft;

(b) Any watercraft of any description, or other artificial contrivance used or capable of being used as a means of transportation on water; or

(c) Any site or area where a hazardous substance, or a pollutant or contaminant, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Facility" does not include any consumer product in consumer use.

10. HAZARDOUS SUBSTANCE. "Hazardous substance," as defined in Minnesota Statutes, Section 115B.02, subd. 8 (1988), means:

(a) Any commercial chemical designated pursuant to the Federal Water Pollution Control Act, under United States Code, title 33, section 1321 (b) (2) (A);

(b) Any hazardous air pollutant listed pursuant to the Clean Air Act, under United States Code, title 42, section 7412, and

(c) Any hazardous waste.

"Hazardous substance" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas, nor does it include petroleum, including crude oil or any fraction thereof which is not otherwise a hazardous waste.

11. HAZARDOUS WASTE. "hazardous waste," as defined in Minnesota Statutes, Section 115B.02, subdivision 9 (1988) means:

(a) Any hazardous waste as defined in section 116.06, subd. 13, and any substance identified as a hazardous waste pursuant to rules adopted by the agency under section 116.07; and

(b) Any hazardous waste as defined in the Resource Conservation and Recovery Act, under United States Code, title 42, section 6903, which is listed or has the characteristics identified under United States Code, title 42,

-4-

section 6921, not including any hazardous waste, the regulation of which has been suspended by Act of Congress.

12. POLLUTANT OR CONTAMINANT. "Pollutant or contaminant," as defined in Minnesota Statutes, Section 115B.02, subdivision 13 (1988) means any element, substance, compound, mixture, or agent, other than a hazardous substance, which after release from a facility and upon exposure of, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in the organisms or their offspring.

"Pollutant or contaminant" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas.

13. SOLID WASTE. "Solid waste," as defined in Minnesota Rules, Part 7035.0300, subpart 100 (1988) means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semi-solid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste, water effluents or discharges which are point sources subject to permits under

section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

14. RELEASE. "Release," as defined in Minnesota Statutes, Section 115B.02, subdivision 15 (1988) means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

"Release" does not include:

(a) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(b) Release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in The Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal nuclear regulatory commission under United States Code, title 42, section 2210.

(c) Release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a) or 7942(a); or

(d) Any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18A.21, subd. 25.

SITE NAME: PIG EYE LANDFILL

DCN: 01303

PAGES: 11

DATE: 8-10-90

SOURCE: _____

AUTHOR: MPCA

RECIPIENT: CMC Real Estate Corporation

TITLE: MPCA Information Request Letter re: Pig's Eye

SUMMARY: This document is a MPCA Information
request letter from MPCA. ~~re information~~
The letter requires CMCREC to provide information
about Pig's Eye & Fish Hatchery Dumps.

PRP's CMCREC _____

TRANSPORTERS _____

CODED BY R.P.

ENTERED BY _____

Q A BY _____

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery
↑(Extra charge)↑ ↑(Extra charge)↑

<p>3. Article Addressed to:</p> <p>CMC Real Estate Corp. 222 West Washington Ave. Madison, WI 57303</p>	<p>4. Article Number</p> <p>P 666 067 179</p> <p>Type of Service:</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature — Addressee</p> <p>X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature — Agent</p> <p>X <i>Peterson White</i></p>	
<p>7. Date of Delivery</p> <p>AUG 14 1990</p>	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

P 666 067 179

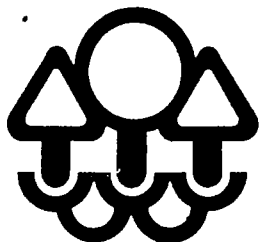
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to		CMC Real Estate
Street and No.		222 W. Washington
P.O. State and ZIP Code		Madison, WI 57303
Postage		\$
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt showing to whom and Date Delivered		
Return Receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees		\$
Postmark or Date		

PS Form 3800, June 1985



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

August 10, 1990

CMC Real Estate Corporation
222 West Washington Avenue
Madison, Wisconsin 53703

Dear Sir or Madam:

RE: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

The Minnesota Pollution Control Agency (MPCA) is responsible for implementing the Minnesota Environmental Response and Liability Act (MERLA). MERLA is the cornerstone of the State's efforts to investigate and remedy hazardous waste sites where contamination threatens public health or the environment.

Pursuant to MERLA, the MPCA staff has identified a release or threatened release of hazardous substances or pollutants or contaminants at the Pig's Eye Dump/Fish Hatcheries Dump, located in Ramsey County, Minnesota. The MPCA staff is in the process of identifying persons who may be responsible for this release or threatened release under MERLA because they 1) owned or operated the facility; 2) arranged for disposal; or 3) arranged for transport for disposal, of hazardous wastes or pollutants or contaminants at the above-referenced site.

The MPCA staff has reason to believe that CMC Real Estate Corporation is a responsible person under MERLA, and may have information that is relevant to the release or threatened release from the Pig's Eye Dump/Fish Hatcheries Dump. To facilitate the Agency's investigation, the MPCA staff is sending you the enclosed Requirement To Provide Information (RPI). As the recipient of this RPI, you have the legal duty under State law to provide information requested by the MPCA that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants. Information obtained in response to the RPI will be used by MPCA staff in carrying out their responsibilities under MERLA, including the identification of other responsible parties for the release or threatened release. This is a first Questionnaire; in the future it may be necessary to supplement the information available to MPCA with additional Questionnaires.

Since obtaining this information is an important initial step in the process, your response to the enclosed Questionnaire needs to be submitted within ninety (90) days from the date of the RPI. Normally, the deadline is 30 days. Because of the significant numbers of responsible persons likely to be involved, this deadline has been extended to 90 days. The information in your response is vital and will allow us to protect public health and the environment.

CMC Real Estate Corporation
Page 2

Therefore, failure to provide timely, complete and accurate answers to the Questionnaire may result in legal actions by the State of Minnesota to compel disclosure.

Attachment 1 contains instructions for completing the Questionnaire. A list of definitions of words used in the Questionnaire may be found in Attachment 2. Please review both Attachments prior to answering the Questionnaire.

The complete Questionnaire and all relevant documents should be mailed to:

Cathy O'Connell, Project Manager
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Should you have any questions regarding this letter and the enclosed RPI and Questionnaire, please contact me at (612) 296-7227.

Sincerely,

for Beth Archinger

Cathy O'Connell
Project Manager
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division

CO:kkn

Enclosures

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of
Pig's Eye Dump/Fish Hatcheries Dump

REQUIREMENT TO
PROVIDE INFORMATION
PURSUANT TO THE MINNESOTA
ENVIRONMENTAL RESPONSE
AND LIABILITY ACT

The Minnesota Pollution Control Agency (MPCA) staff has reason to believe that CMC Real Estate Corporation is a responsible person under the Minnesota Environmental Response and Liability Act (MERLA) and may have information that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants from the above-referenced site. You are required by Minn. Stat. § 115B.17, subd. 3 (1988), to provide information to the MPCA and its employees that is relevant to the release or threatened release:

Any person who the agency has reason to believe is responsible for a release or threatened release as provided in section 115B.03, or who is the owner of real property where the release or threatened release is located or where response actions are proposed to be taken, when requested by the agency, or any member, employee or agent thereof who is authorized by the agency, shall furnish the agency any information which that person may have or may reasonably obtain which is relevant to the release or threatened release.

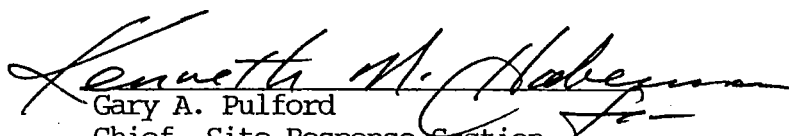
The MPCA is also authorized by Minn. Stat. § 115B.17, subd. 4(a)(1988), to examine and copy any books, papers, records, memoranda or data of any person who has a duty to provide information under Section 115B.17, subd. 3.

In addition, the MPCA is authorized to conduct investigations in conjunction with its duties to enforce the State's laws on water and air pollution. Minnesota Statutes, Section 115.03, subd. 1(h)(1988), Section 116.07, subd. 9(c)(1988).

You are hereby directed to answer the attached questionnaire and to provide any relevant documents within ninety (90) days from the date of this Requirement to Provide Information. Failure to respond or to provide complete and accurate answers to the enclosed questions may result in legal action by the State of Minnesota to compel disclosure.

Date: 8/10/90

MINNESOTA POLLUTION CONTROL AGENCY


Gary A. Pulford
Chief, Site Response Section
Ground Water and Solid Waste Division

QUESTIONNAIRE FOR PIG'S EYE DUMP/FISH HATCHERIES DUMP
AND
REQUEST FOR PRODUCTION OF DOCUMENTS

1. Identify the full legal name, address and phone number of the business or governmental entity, hereinafter referred to as "business."
2. How many years has the business been in operation?
3. Identify the names and current addresses and telephone numbers of all current and past owner(s) of the business.
4. Provide a map indicating that portion of the site(s) owned or operated by the business. Include leases.
5. Identify all MPCA, Minnesota Department of Health and other environmental permits issued by Federal, State, county, city or other governmental authorities that the business holds and the effective dates for such permits.
6. Identify and list all businesses and industrial customers whose garbage and/or hazardous wastes or pollutants or contaminants were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
7. Identify and list all transporters of garbage and/or hazardous wastes or pollutants or contaminants that were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
8. Provide a map indicating the portions of the site(s) dedicated to specific uses or specific businesses.
9. How was the garbage and/or hazardous wastes or pollutants or contaminants picked up from businesses or industrial customers stored (e.g., in drums, barrels, dumpsters) for pick up? For transport?
10. How was the garbage and/or hazardous wastes or pollutants or contaminants disposed of (e.g., drums buried or emptied and returned) at the site(s)?
11. Identify all persons whom the business consulted in the preparation of the response to the Questionnaire, including their current addresses and telephone numbers and relationship to the business.
12. Identify any other persons who may be able to provide a more detailed or complete response to the Questionnaire or who may be able to provide additional relevant documents.

Attachment 1
Instructions for Questionnaire

1. ENCLOSE WITH YOUR RESPONSE TO THE QUESTIONNAIRE A NOTARIZED AFFIDAVIT FROM YOU OR AN AUTHORIZED OFFICIAL REPRESENTING YOUR BUSINESS ATTESTING TO THE FACT (A) THAT A DILIGENT SEARCH FOR RECORDS RELEVANT TO THIS QUESTIONNAIRE HAS BEEN COMPLETED AND (B) THAT A DILIGENT INTERVIEW PROCESS HAS BEEN CONDUCTED WITH PRESENT AND FORMER EMPLOYEES WHO MAY HAVE KNOWLEDGE OF WASTE GENERATION OR OTHER WASTE MANAGEMENT PRACTICES AT PIG'S EYE DUMP/FISH HATCHERIES DUMP FROM 1956 TO 1972. ANY INFORMATION THAT YOU PROVIDE IN RESPONSE TO THE QUESTIONNAIRE THAT IS BASED ON YOUR PERSONAL KNOWLEDGE, OR THE PERSONAL KNOWLEDGE OF YOUR EMPLOYEES, AGENTS, OR OTHER REPRESENTATIVES MUST BE SUBMITTED IN THE FORM OF A NOTARIZED AFFIDAVIT.
2. Review the list of definitions in Attachment 2.
3. Make a separate written response to each question. Do NOT leave any blank questions.
4. Number each of your answers according to the corresponding numbered question. For each document produced in response to the Requirement to Provide Information, identify the number of the question to which it responds on the document or in some other reasonable manner.
5. In answering each question, identify all sources of information consulted in preparing the response.
6. You are required to respond to each question on the basis of any and all information and documents in your possession, custody, or control or the possession, custody, or control of your current or former employees, agents, or contractors, or other person who conducted business on your behalf. Furnish information that is available to you regardless of whether it is based on personal knowledge, and regardless of source.
7. Information necessary to adequately respond to a question may not be known or available on the date your response is submitted. If this is the case, you have a continuing duty to provide the information when it becomes known or available, and to submit correct information that was submitted in the response and later learned to be wrong.
8. Respond in writing to each question even if information on which your answer is based has not been recorded in any particular document.
9. If any requested documents have been transferred voluntarily or involuntarily to others or have been otherwise disposed of, identify (a) each document; (b) the person to whom it was transferred; and (c) the date of the transfer or disposal.
10. You have a duty to provide the requested information even if the information may be considered confidential or a trade secret. If you provide any information that relates to sales figures, processes or methods of production unique to your business, or information that would tend to affect adversely the competitive position of your business if generally known, you may certify this claim at the time you submit your response and the

-2-

information so certified will be held nonpublic as provided in Minnesota Statutes, Section 115B.17, subdivision 5 (1988). Any such certification must specifically identify the information that you believe qualifies for nonpublic treatment. If no such certification accompanies the information when it is received by the MPCA, it may be made available to the public by the MPCA without further notice to you.

Attachment 2

Definitions for Questionnaire

For the purpose of your answers to the Questionnaire, the following definitions shall apply:

1. CMC REAL ESTATE CORPORATION. "CMC Real Estate Corporation" includes any agent, subcontractor, or any other person who conducted or did business on behalf of "CMC Real Estate Corporation."

2. Pig's Eye Dump/Fish Hatcheries Dump. "Pig's Eye Dump/Fish Hatcheries Dump" means the property located 1/2 mile southeast of the intersection of Warner Road and Childs Road (an old report lists the address as 1150 Pig's Eye Lake Road) [Ramsey County, Section 10, T28N, R22W] and the property located at the intersection of Warner Road and Childs Road (an old report simply gives the address as Warner Road) [Ramsey County, Section 3, T28N, R22W], St. Paul, Minnesota.

3. YOU; BUSINESS. The terms "you" and "business," means the addressee of the Requirement to Provide Information.

4. DOCUMENT. "Document" means information preserved in any manner which is in the possession of or may be reasonably obtained by the addressee, including information in the possession of the addressee's directors, officers, shareholders, partners, managers, employees, subcontractors, trustees, successors, assigns, and agents, regardless of the location of the document or its classification as privileged or confidential. The term "document" includes but is not limited to the following: correspondence, contracts, agreements, memoranda, telegrams, reports, assignments, personnel records, record books, manifests, logs, scrap-books, diaries, minutes, plans, drawings, photographs, tapes, computer discs, invoices, checks, surveys and analyses.

5. IDENTIFY/Individual. The term "identify" means, with respect to an "individual," to set forth the person's full name, present or last known

address, name of the employer, and a description of the job responsibilities of the person.

6. IDENTIFY/Business. The term "identify" means, with respect to a governmental entity, corporation, sole proprietorship, partnership, or other association or business entity, to set forth its full name, address, legal form (for example, corporation, partnership, etc.), and a brief description of the product or service offered by the business.

7. IDENTIFY/Document. The term "identify" means, with respect to a document to provide its customary business description, its date, its number if any (for example, invoice or purchase order number) as well as its author, addresser, addressee and/or recipient, and the substance or the subject matter.

8. PERSON. "Person," as defined in Minnesota Statutes, Section 115B.02, subdivision 12 (1988) means any individual, partnership, association, public or private corporation or other entity, including the United States government, any interstate body, the state and any agency, department or political subdivision of the state.

9. FACILITY. "Facility," as defined in Minnesota Statutes, Section 115b.02, subdivision 5 (1988) means:

(a) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft;

(b) Any watercraft of any description, or other artificial contrivance used or capable of being used as a means of transportation on water; or

-3-

(c) Any site or area where a hazardous substance, or a pollutant or contaminant, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Facility" does not include any consumer product in consumer use.

10. HAZARDOUS SUBSTANCE. "Hazardous substance," as defined in Minnesota Statutes, Section 115B.02, subd. 8 (1988), means:

(a) Any commercial chemical designated pursuant to the Federal Water Pollution Control Act, under United States Code, title 33, section 1321 (b) (2) (A);

(b) Any hazardous air pollutant listed pursuant to the Clean Air Act, under United States Code, title 42, section 7412, and

(c) Any hazardous waste.

"Hazardous substance" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas, nor does it include petroleum, including crude oil or any fraction thereof which is not otherwise a hazardous waste.

11. HAZARDOUS WASTE. "hazardous waste," as defined in Minnesota Statutes, Section 115B.02, subdivision 9 (1988) means:

(a) Any hazardous waste as defined in section 116.06, subd. 13, and any substance identified as a hazardous waste pursuant to rules adopted by the agency under section 116.07; and

(b) Any hazardous waste as defined in the Resource Conservation and Recovery Act, under United States Code, title 42, section 6903, which is listed or has the characteristics identified under United States Code, title 42,

-4-

section 6921, not including any hazardous waste, the regulation of which has been suspended by Act of Congress.

12. POLLUTANT OR CONTAMINANT. "Pollutant or contaminant," as defined in Minnesota Statutes, Section 115B.02, subdivision 13 (1988) means any element, substance, compound, mixture, or agent, other than a hazardous substance, which after release from a facility and upon exposure of, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in the organisms or their offspring.

"Pollutant or contaminant" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas.

13. SOLID WASTE. "Solid waste," as defined in Minnesota Rules, Part 7035.0300, subpart 100 (1988) means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semi-solid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste, water effluents or discharges which are point sources subject to permits under

-5-

section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

14. RELEASE. "Release," as defined in Minnesota Statutes, Section 115B.02, subdivision 15 (1988) means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

"Release" does not include:

(a) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(b) Release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in The Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal nuclear regulatory commission under United States Code, title 42, section 2210.

(c) Release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a) or 7942(a); or

(d) Any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18A.21, subd. 25.

SITE NAME: PIG EYE LANDFILL

DCN: 01315

PAGES: 8

DATE: 8-10-90

SOURCE: _____

AUTHOR: Q MRCA

RECIPIENT: CMSPRC

TITLE: MRCA INFORMATION REQUEST LETTER RE: PIG'S EYE

SUMMARY: THIS DOCUMENT IS A MRCA INFORMATION
REQUEST LETTER RE: FROM MRCA. THE LETTER
REQUIRES CMSPRC TO PROVIDE INFORMATION
ABOUT PIG'S EYE & FISH HATCHERY DUMPS

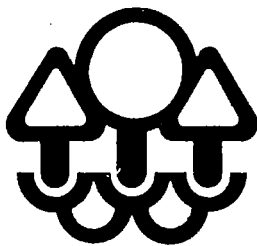
PRP's CMSPRE

TRANSPORTERS _____

CODED BY RS

ENTERED BY _____

QA BY _____



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300

01315



**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

August 10, 1990

Chicago, Milwaukee, St. Paul
and Pacific Railroad Company
c/o CT Corporation System, Inc.
405 - 2nd Avenue South
Minneapolis, Minnesota 55401

Dear Sir or Madam:

RE: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

The Minnesota Pollution Control Agency (MPCA) is responsible for implementing the Minnesota Environmental Response and Liability Act (MERLA). MERLA is the cornerstone of the State's efforts to investigate and remedy hazardous waste sites where contamination threatens public health or the environment.

Pursuant to MERLA, the MPCA staff has identified a release or threatened release of hazardous substances or pollutants or contaminants at the Pig's Eye Dump/Fish Hatcheries Dump, located in Ramsey County, Minnesota. The MPCA staff is in the process of identifying persons who may be responsible for this release or threatened release under MERLA because they 1) owned or operated the facility; 2) arranged for disposal; or 3) arranged for transport for disposal, of hazardous wastes or pollutants or contaminants at the above-referenced site.

The MPCA staff has reason to believe that Chicago, Milwaukee, St. Paul and Pacific Railroad Company is a responsible person under MERLA, and may have information that is relevant to the release or threatened release from the Pig's Eye Dump/Fish Hatcheries Dump. To facilitate the Agency's investigation, the MPCA staff is sending you the enclosed Requirement To Provide Information (RPI). As the recipient of this RPI, you have the legal duty under State law to provide information requested by the MPCA that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants. Information obtained in response to the RPI will be used by MPCA staff in carrying out their responsibilities under MERLA, including the identification of other responsible parties for the release or threatened release. This is a first Questionnaire; in the future it may be necessary to supplement the information available to MPCA with additional Questionnaires.

Since obtaining this information is an important initial step in the process, your response to the enclosed Questionnaire needs to be submitted within ninety (90) days from the date of the RPI. Normally, the deadline is 30 days. Because of the significant numbers of responsible persons likely to be involved, this deadline has been extended to 90 days. The information in your response is

Chicago, Milwaukee, St. Paul and Pacific Railroad Company
Page 2

vital and will allow us to protect public health and the environment. Therefore, failure to provide timely, complete and accurate answers to the Questionnaire may result in legal actions by the State of Minnesota to compel disclosure.

Attachment 1 contains instructions for completing the Questionnaire. A list of definitions of words used in the Questionnaire may be found in Attachment 2. Please review both Attachments prior to answering the Questionnaire.

The complete Questionnaire and all relevant documents should be mailed to:

Cathy O'Connell, Project Manager
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Should you have any questions regarding this letter and the enclosed RPI and Questionnaire, please contact me at (612) 296-7227.

Sincerely,

Beth Aschinger

for Cathy O'Connell
Project Manager
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division

CO:kkn

Enclosures

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of
Pig's Eye Dump/Fish Hatcheries Dump

REQUIREMENT TO
PROVIDE INFORMATION
PURSUANT TO THE MINNESOTA
ENVIRONMENTAL RESPONSE
AND LIABILITY ACT

The Minnesota Pollution Control Agency (MPCA) staff has reason to believe that the Chicago, Milwaukee, St. Paul and Pacific Railroad Company is a responsible person under the Minnesota Environmental Response and Liability Act (MERLA) and may have information that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants from the above-referenced site. You are required by Minn. Stat. § 115B.17, subd. 3 (1988), to provide information to the MPCA and its employees that is relevant to the release or threatened release:

Any person who the agency has reason to believe is responsible for a release or threatened release as provided in section 115B.03, or who is the owner of real property where the release or threatened release is located or where response actions are proposed to be taken, when requested by the agency, or any member, employee or agent thereof who is authorized by the agency, shall furnish the agency any information which that person may have or may reasonably obtain which is relevant to the release or threatened release.

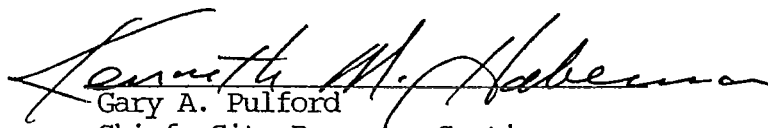
The MPCA is also authorized by Minn. Stat. § 115B.17, subd. 4(a)(1988), to examine and copy any books, papers, records, memoranda or data of any person who has a duty to provide information under Section 115B.17, subd. 3.

In addition, the MPCA is authorized to conduct investigations in conjunction with its duties to enforce the State's laws on water and air pollution. Minnesota Statutes, Section 115.03, subd. 1(h)(1988), Section 116.07, subd. 9(c)(1988).

You are hereby directed to answer the attached questionnaire and to provide any relevant documents within ninety (90) days from the date of this Requirement to Provide Information. Failure to respond or to provide complete and accurate answers to the enclosed questions may result in legal action by the State of Minnesota to compel disclosure.

Date: 8/10/90

MINNESOTA POLLUTION CONTROL AGENCY


Gary A. Pulford
Chief, Site Response Section
Ground Water and Solid Waste Division

QUESTIONNAIRE FOR PIG'S EYE DUMP/FISH HATCHERIES DUMP
AND
REQUEST FOR PRODUCTION OF DOCUMENTS

1. Identify the full legal name, address and phone number of the business or governmental entity, hereinafter referred to as "business."
2. How many years has the business been in operation?
3. Identify the names and current addresses and telephone numbers of all current and past owner(s) of the business.
4. Provide a map indicating that portion of the site(s) owned or operated by the business. Include leases.
5. Identify all MPCA, Minnesota Department of Health and other environmental permits issued by Federal, State, county, city or other governmental authorities that the business holds and the effective dates for such permits.
6. Identify and list all businesses and industrial customers whose garbage and/or hazardous wastes or pollutants or contaminants were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
7. Identify and list all transporters of garbage and/or hazardous wastes or pollutants or contaminants that were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
8. Provide a map indicating the portions of the site(s) dedicated to specific uses or specific businesses.
9. How was the garbage and/or hazardous wastes or pollutants or contaminants picked up from businesses or industrial customers stored (e.g., in drums, barrels, dumpsters) for pick up? For transport?
10. How was the garbage and/or hazardous wastes or pollutants or contaminants disposed of (e.g., drums buried or emptied and returned) at the site(s)?
11. Identify all persons whom the business consulted in the preparation of the response to the Questionnaire, including their current addresses and telephone numbers and relationship to the business.
12. Identify any other persons who may be able to provide a more detailed or complete response to the Questionnaire or who may be able to provide additional relevant documents.

Attachment 2

Definitions for Questionnaire

For the purpose of your answers to the Questionnaire, the following definitions shall apply:

1. CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD COMPANY. "Chicago, Milwaukee, St. Paul and Pacific Railroad Company" includes any agent, subcontractor, or any other person who conducted or did business on behalf of "Chicago, Milwaukee, St. Paul and Pacific Railroad Company."

2. Pig's Eye Dump/Fish Hatcheries Dump. "Pig's Eye Dump/Fish Hatcheries Dump" means the property located 1/2 mile southeast of the intersection of Warner Road and Childs Road (an old report lists the address as 1150 Pig's Eye Lake Road) [Ramsey County, Section 10, T28N, R22W] and the property located at the intersection of Warner Road and Childs Road (an old report simply gives the address as Warner Road) [Ramsey County, Section 3, T28N, R22W], St. Paul, Minnesota.

3. YOU; BUSINESS. The terms "you" and "business," means the addressee of the Requirement to Provide Information.

4. DOCUMENT. "Document" means information preserved in any manner which is in the possession of or may be reasonably obtained by the addressee, including information in the possession of the addressee's directors, officers, shareholders, partners, managers, employees, subcontractors, trustees, successors, assigns, and agents, regardless of the location of the document or its classification as privileged or confidential. The term "document" includes but is not limited to the following: correspondence, contracts, agreements, memoranda, telegrams, reports, assignments, personnel records, record books, manifests, logs, scrap-books, diaries, minutes, plans, drawings, photographs, tapes, computer discs, invoices, checks, surveys and analyses.

5. IDENTIFY/Individual. The term "identify" means, with respect to an "individual," to set forth the person's full name, present or last known

address, name of the employer, and a description of the job responsibilities of the person.

6. IDENTIFY/Business. The term "identify" means, with respect to a governmental entity, corporation, sole proprietorship, partnership, or other association or business entity, to set forth its full name, address, legal form (for example, corporation, partnership, etc.), and a brief description of the product or service offered by the business.

7. IDENTIFY/Document. The term "identify" means, with respect to a document to provide its customary business description, its date, its number if any (for example, invoice or purchase order number) as well as its author, addresser, addressee and/or recipient, and the substance or the subject matter.

8. PERSON. "Person," as defined in Minnesota Statutes, Section 115B.02, subdivision 12 (1988) means any individual, partnership, association, public or private corporation or other entity, including the United States government, any interstate body, the state and any agency, department or political subdivision of the state.

9. FACILITY. "Facility," as defined in Minnesota Statutes, Section 115b.02, subdivision 5 (1988) means:

(a) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft;

(b) Any watercraft of any description, or other artificial contrivance used or capable of being used as a means of transportation on water; or

-3-

(c) Any site or area where a hazardous substance, or a pollutant or contaminant, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Facility" does not include any consumer product in consumer use.

10. HAZARDOUS SUBSTANCE. "Hazardous substance," as defined in Minnesota Statutes, Section 115B.02, subd. 8 (1988), means:

(a) Any commercial chemical designated pursuant to the Federal Water Pollution Control Act, under United States Code, title 33, section 1321 (b) (2) (A);

(b) Any hazardous air pollutant listed pursuant to the Clean Air Act, under United States Code, title 42, section 7412, and

(c) Any hazardous waste.

"Hazardous substance" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas, nor does it include petroleum, including crude oil or any fraction thereof which is not otherwise a hazardous waste.

11. HAZARDOUS WASTE. "hazardous waste," as defined in Minnesota Statutes, Section 115B.02, subdivision 9 (1988) means:

(a) Any hazardous waste as defined in section 116.06, subd. 13, and any substance identified as a hazardous waste pursuant to rules adopted by the agency under section 116.07; and

(b) Any hazardous waste as defined in the Resource Conservation and Recovery Act, under United States Code, title 42, section 6903, which is listed or has the characteristics identified under United States Code, title 42,

section 6921, not including any hazardous waste, the regulation of which has been suspended by Act of Congress.

12. POLLUTANT OR CONTAMINANT. "Pollutant or contaminant," as defined in Minnesota Statutes, Section 115B.02, subdivision 13 (1988) means any element, substance, compound, mixture, or agent, other than a hazardous substance, which after release from a facility and upon exposure of, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in the organisms or their offspring.

"Pollutant or contaminant" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas.

13. SOLID WASTE. "Solid waste," as defined in Minnesota Rules, Part 7035.0300, subpart 100 (1988) means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semi-solid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste, water effluents or discharges which are point sources subject to permits under

-5-

section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

14. RELEASE. "Release," as defined in Minnesota Statutes, Section 115B.02, subdivision 15 (1988) means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

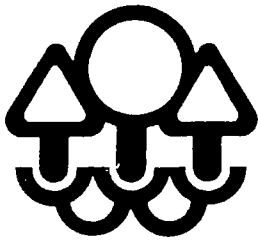
"Release" does not include:

(a) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(b) Release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in The Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal nuclear regulatory commission under United States Code, title 42, section 2210.

(c) Release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a) or 7942(a); or

(d) Any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18A.21, subd. 25.



01324

Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

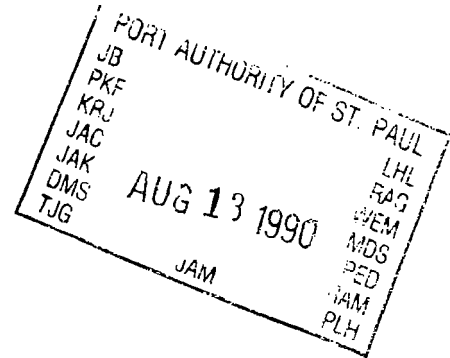
Telephone (612) 296-6300



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 10, 1990

Port Authority of St. Paul
1900 Landmark Tower
345 St. Peter Street
St. Paul, Minnesota 55102



Dear Sir or Madam:

RE: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

The Minnesota Pollution Control Agency (MPCA) is responsible for implementing the Minnesota Environmental Response and Liability Act (MERLA). MERLA is the cornerstone of the State's efforts to investigate and remedy hazardous waste sites where contamination threatens public health or the environment.

Pursuant to MERLA, the MPCA staff has identified a release or threatened release of hazardous substances or pollutants or contaminants at the Pig's Eye Dump/Fish Hatcheries Dump, located in Ramsey County, Minnesota. The MPCA staff is in the process of identifying persons who may be responsible for this release or threatened release under MERLA because they 1) owned or operated the facility; 2) arranged for disposal; or 3) arranged for transport for disposal, of hazardous wastes or pollutants or contaminants at the above-referenced site.

The MPCA staff has reason to believe that the St. Paul Port Authority is a responsible person under MERLA, and may have information that is relevant to the release or threatened release from the Pig's Eye Dump/Fish Hatcheries Dump. To facilitate the Agency's investigation, the MPCA staff is sending you the enclosed Requirement To Provide Information (RPI). As the recipient of this RPI, you have the legal duty under State law to provide information requested by the MPCA that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants. Information obtained in response to the RPI will be used by MPCA staff in carrying out their responsibilities under MERLA, including the identification of other responsible parties for the release or threatened release. This is a first Questionnaire; in the future it may be necessary to supplement the information available to MPCA with additional Questionnaires.

Since obtaining this information is an important initial step in the process, your response to the enclosed Questionnaire needs to be submitted within ninety (90) days from the date of the RPI. Normally, the deadline is 30 days. Because of the significant numbers of responsible persons likely to be involved, this deadline has been extended to 90 days. The information in your response is vital and will allow us to protect public health and the environment.

Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester

Equal Opportunity Employer

Printed on Recycled Paper

St. Paul Port Authority
Page 2

Therefore, failure to provide timely, complete and accurate answers to the Questionnaire may result in legal actions by the State of Minnesota to compel disclosure.

Attachment 1 contains instructions for completing the Questionnaire. A list of definitions of words used in the Questionnaire may be found in Attachment 2. Please review both Attachments prior to answering the Questionnaire.

The complete Questionnaire and all relevant documents should be mailed to:

Cathy O'Connell, Project Manager
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Should you have any questions regarding this letter and the enclosed RPI and Questionnaire, please contact me at (612) 296-7227.

Sincerely,

Beth Aschinger

for Cathy O'Connell
Project Manager
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division

CO:kkn

Enclosures

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of
Pig's Eye Dump/Fish Hatcheries Dump

REQUIREMENT TO
PROVIDE INFORMATION
PURSUANT TO THE MINNESOTA
ENVIRONMENTAL RESPONSE
AND LIABILITY ACT

The Minnesota Pollution Control Agency (MPCA) staff has reason to believe that the Port Authority of St. Paul is a responsible person under the Minnesota Environmental Response and Liability Act (MERLA) and may have information that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants from the above-referenced site. You are required by Minn. Stat. § 115B.17, subd. 3 (1988), to provide information to the MPCA and its employees that is relevant to the release or threatened release:

Any person who the agency has reason to believe is responsible for a release or threatened release as provided in section 115B.03, or who is the owner of real property where the release or threatened release is located or where response actions are proposed to be taken, when requested by the agency, or any member, employee or agent thereof who is authorized by the agency, shall furnish the agency any information which that person may have or may reasonably obtain which is relevant to the release or threatened release.


The MPCA is also authorized by Minn. Stat. § 115B.17, subd. 4(a)(1988), to examine and copy any books, papers, records, memoranda or data of any person who has a duty to provide information under Section 115B.17, subd. 3.

In addition, the MPCA is authorized to conduct investigations in conjunction with its duties to enforce the State's laws on water and air pollution. Minnesota Statutes, Section 115.03, subd. 1(h)(1988), Section 116.07, subd. 9(c)(1988).

You are hereby directed to answer the attached questionnaire and to provide any relevant documents within ninety (90) days from the date of this Requirement to Provide Information. Failure to respond or to provide complete and accurate answers to the enclosed questions may result in legal action by the State of Minnesota to compel disclosure.

Date: 8/10/90

MINNESOTA POLLUTION CONTROL AGENCY


Gary A. Pulford
Chief, Site Response Section
Ground Water and Solid Waste Division

QUESTIONNAIRE FOR PIG'S EYE DUMP/FISH HATCHERIES DUMP
AND
REQUEST FOR PRODUCTION OF DOCUMENTS

1. Identify the full legal name, address and phone number of the business or governmental entity, hereinafter referred to as "business."
2. How many years has the business been in operation?
3. Identify the names and current addresses and telephone numbers of all current and past owner(s) of the business.
4. Provide a map indicating that portion of the site(s) owned or operated by the business. Include leases.
5. Identify all MPCA, Minnesota Department of Health and other environmental permits issued by Federal, State, county, city or other governmental authorities that the business holds and the effective dates for such permits.
6. Identify and list all businesses and industrial customers whose garbage and/or hazardous wastes or pollutants or contaminants were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
7. Identify and list all transporters of garbage and/or hazardous wastes or pollutants or contaminants that were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
8. Provide a map indicating the portions of the site(s) dedicated to specific uses or specific businesses.
9. How was the garbage and/or hazardous wastes or pollutants or contaminants picked up from businesses or industrial customers stored (e.g., in drums, barrels, dumpsters) for pick up? For transport?
10. How was the garbage and/or hazardous wastes or pollutants or contaminants disposed of (e.g., drums buried or emptied and returned) at the site(s)?
11. Identify all persons whom the business consulted in the preparation of the response to the Questionnaire, including their current addresses and telephone numbers and relationship to the business.
12. Identify any other persons who may be able to provide a more detailed or complete response to the Questionnaire or who may be able to provide additional relevant documents.

Attachment 1
Instructions for Questionnaire

1. ENCLOSE WITH YOUR RESPONSE TO THE QUESTIONNAIRE A NOTARIZED AFFIDAVIT FROM YOU OR AN AUTHORIZED OFFICIAL REPRESENTING YOUR BUSINESS ATTESTING TO THE FACT (A) THAT A DILIGENT SEARCH FOR RECORDS RELEVANT TO THIS QUESTIONNAIRE HAS BEEN COMPLETED AND (B) THAT A DILIGENT INTERVIEW PROCESS HAS BEEN CONDUCTED WITH PRESENT AND FORMER EMPLOYEES WHO MAY HAVE KNOWLEDGE OF WASTE GENERATION OR OTHER WASTE MANAGEMENT PRACTICES AT PIG'S EYE DUMP/FISH HATCHERIES DUMP FROM 1956 TO 1972. ANY INFORMATION THAT YOU PROVIDE IN RESPONSE TO THE QUESTIONNAIRE THAT IS BASED ON YOUR PERSONAL KNOWLEDGE, OR THE PERSONAL KNOWLEDGE OF YOUR EMPLOYEES, AGENTS, OR OTHER REPRESENTATIVES MUST BE SUBMITTED IN THE FORM OF A NOTARIZED AFFIDAVIT.
2. Review the list of definitions in Attachment 2.
3. Make a separate written response to each question. Do NOT leave any blank questions.
4. Number each of your answers according to the corresponding numbered question. For each document produced in response to the Requirement to Provide Information, identify the number of the question to which it responds on the document or in some other reasonable manner.
5. In answering each question, identify all sources of information consulted in preparing the response.
6. You are required to respond to each question on the basis of any and all information and documents in your possession, custody, or control or the possession, custody, or control of your current or former employees, agents, or contractors, or other person who conducted business on your behalf. Furnish information that is available to you regardless of whether it is based on personal knowledge, and regardless of source.
7. Information necessary to adequately respond to a question may not be known or available on the date your response is submitted. If this is the case, you have a continuing duty to provide the information when it becomes known or available, and to submit correct information that was submitted in the response and later learned to be wrong.
8. Respond in writing to each question even if information on which your answer is based has not been recorded in any particular document.
9. If any requested documents have been transferred voluntarily or involuntarily to others or have been otherwise disposed of, identify (a) each document; (b) the person to whom it was transferred; and (c) the date of the transfer or disposal.
10. You have a duty to provide the requested information even if the information may be considered confidential or a trade secret. If you provide any information that relates to sales figures, processes or methods of production unique to your business, or information that would tend to affect adversely the competitive position of your business if generally known, you may certify this claim at the time you submit your response and the

-2-

information so certified will be held nonpublic as provided in Minnesota Statutes, Section 115B.17, subdivision 5 (1988). Any such certification must specifically identify the information that you believe qualifies for nonpublic treatment. If no such certification accompanies the information when it is received by the MPCA, it may be made available to the public by the MPCA without further notice to you.

Attachment 2

Definitions for Questionnaire

For the purpose of your answers to the Questionnaire, the following definitions shall apply:

1. PORT AUTHORITY OF ST. PAUL. "Port Authority of St. Paul" includes any agent, subcontractor, or any other person who conducted or did business on behalf of "Port Authority of St. Paul."
2. Pig's Eye Dump/Fish Hatcheries Dump. "Pig's Eye Dump/Fish Hatcheries Dump" means the property located 1/2 mile southeast of the intersection of Warner Road and Childs Road (an old report lists the address as 1150 Pig's Eye Lake Road) [Ramsey County, Section 10, T28N, R22W] and the property located at the intersection of Warner Road and Childs Road (an old report simply gives the address as Warner Road) [Ramsey County, Section 3, T28N, R22W], St. Paul, Minnesota.
3. YOU; BUSINESS. The terms "you" and "business," means the addressee of the Requirement to Provide Information.
4. DOCUMENT. "Document" means information preserved in any manner which is in the possession of or may be reasonably obtained by the addressee, including information in the possession of the addressee's directors, officers, shareholders, partners, managers, employees, subcontractors, trustees, successors, assigns, and agents, regardless of the location of the document or its classification as privileged or confidential. The term "document" includes but is not limited to the following: correspondence, contracts, agreements, memoranda, telegrams, reports, assignments, personnel records, record books, manifests, logs, scrap-books, diaries, minutes, plans, drawings, photographs, tapes, computer discs, invoices, checks, surveys and analyses.
5. IDENTIFY/Individual. The term "identify" means, with respect to an "individual," to set forth the person's full name, present or last known

address, name of the employer, and a description of the job responsibilities of the person.

6. IDENTIFY/Business. The term "identify" means, with respect to a governmental entity, corporation, sole proprietorship, partnership, or other association or business entity, to set forth its full name, address, legal form (for example, corporation, partnership, etc.), and a brief description of the product or service offered by the business.

7. IDENTIFY/Document. The term "identify" means, with respect to a document to provide its customary business description, its date, its number if any (for example, invoice or purchase order number) as well as its author, addresser, addressee and/or recipient, and the substance or the subject matter.

8. PERSON. "Person," as defined in Minnesota Statutes, Section 115B.02, subdivision 12 (1988) means any individual, partnership, association, public or private corporation or other entity, including the United States government, any interstate body, the state and any agency, department or political subdivision of the state.

9. FACILITY. "Facility," as defined in Minnesota Statutes, Section 115b.02, subdivision 5 (1988) means:

(a) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft;

(b) Any watercraft of any description, or other artificial contrivance used or capable of being used as a means of transportation on water; or

-3-

(c) Any site or area where a hazardous substance, or a pollutant or contaminant, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Facility" does not include any consumer product in consumer use.

10. HAZARDOUS SUBSTANCE. "Hazardous substance," as defined in Minnesota Statutes, Section 115B.02, subd. 8 (1988), means:

(a) Any commercial chemical designated pursuant to the Federal Water Pollution Control Act, under United States Code, title 33, section 1321 (b) (2) (A);

(b) Any hazardous air pollutant listed pursuant to the Clean Air Act, under United States Code, title 42, section 7412, and

(c) Any hazardous waste.

"Hazardous substance" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas, nor does it include petroleum, including crude oil or any fraction thereof which is not otherwise a hazardous waste.

11. HAZARDOUS WASTE. "hazardous waste," as defined in Minnesota Statutes, Section 115B.02, subdivision 9 (1988) means:

(a) Any hazardous waste as defined in section 116.06, subd. 13, and any substance identified as a hazardous waste pursuant to rules adopted by the agency under section 116.07; and

(b) Any hazardous waste as defined in the Resource Conservation and Recovery Act, under United States Code, title 42, section 6903, which is listed or has the characteristics identified under United States Code, title 42,

section 6921, not including any hazardous waste, the regulation of which has been suspended by Act of Congress.

12. POLLUTANT OR CONTAMINANT. "Pollutant or contaminant," as defined in Minnesota Statutes, Section 115B.02, subdivision 13 (1988) means any element, substance, compound, mixture, or agent, other than a hazardous substance, which after release from a facility and upon exposure of, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in the organisms or their offspring.

"Pollutant or contaminant" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas.

13. SOLID WASTE. "Solid waste," as defined in Minnesota Rules, Part 7035.0300, subpart 100 (1988) means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semi-solid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste, water effluents or discharges which are point sources subject to permits under

-5-

section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

14. RELEASE. "Release," as defined in Minnesota Statutes, Section 115B.02, subdivision 15 (1988) means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

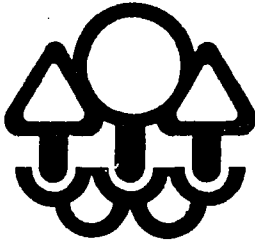
"Release" does not include:

(a) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(b) Release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in The Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal nuclear regulatory commission under United States Code, title 42, section 2210.

(c) Release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a) or 7942(a); or

(d) Any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18A.21, subd. 25.



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

August 10, 1990

Mr. Rick Persons
City of St. Paul
Department of Public Works
600 City Hall Annex
St. Paul, Minnesota 55102

Dear Mr. Persons:

RE: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

The Minnesota Pollution Control Agency (MPCA) is responsible for implementing the Minnesota Environmental Response and Liability Act (MERLA). MERLA is the cornerstone of the State's efforts to investigate and remedy hazardous waste sites where contamination threatens public health or the environment.

Pursuant to MERLA, the MPCA staff has identified a release or threatened release of hazardous substances or pollutants or contaminants at the Pig's Eye Dump/Fish Hatcheries Dump, located in Ramsey County, Minnesota. The MPCA staff is in the process of identifying persons who may be responsible for this release or threatened release under MERLA because they 1) owned or operated the facility; 2) arranged for disposal; or 3) arranged for transport for disposal, of hazardous wastes or pollutants or contaminants at the above-referenced site.

The MPCA staff has reason to believe that the city of St. Paul Department of Public Works is a responsible person under MERLA, and may have information that is relevant to the release or threatened release from the Pig's Eye Dump/Fish Hatcheries Dump. To facilitate the Agency's investigation, the MPCA staff is sending you the enclosed Requirement To Provide Information (RPI). As the recipient of this RPI, you have the legal duty under State law to provide information requested by the MPCA that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants. Information obtained in response to the RPI will be used by MPCA staff in carrying out their responsibilities under MERLA, including the identification of other responsible parties for the release or threatened release. This is a first Questionnaire; in the future it may be necessary to supplement the information available to MPCA with additional Questionnaires.

Since obtaining this information is an important initial step in the process, your response to the enclosed Questionnaire needs to be submitted within ninety (90) days from the date of the RPI. Normally, the deadline is 30 days. Because of the significant numbers of responsible persons likely to be involved, this deadline has been extended to 90 days. The information in your response is

Mr. Rick Persons
Page 2

vital and will allow us to protect public health and the environment. Therefore, failure to provide timely, complete and accurate answers to the Questionnaire may result in legal actions by the State of Minnesota to compel disclosure.

Attachment 1 contains instructions for completing the Questionnaire. A list of definitions of words used in the Questionnaire may be found in Attachment 2. Please review both Attachments prior to answering the Questionnaire.

The complete Questionnaire and all relevant documents should be mailed to:

Cathy O'Connell, Project Manager
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Should you have any questions regarding this letter and the enclosed RPI and Questionnaire, please contact me at (612) 296-7227.

Sincerely,

Beth Aschinger

for Cathy O'Connell
Project Manager
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division

CO:kkn

Enclosures

STATE OF MINNESOTA
POLLUTION CONTROL AGENCY

In the Matter of
Pig's Eye Dump/Fish Hatcheries Dump

REQUIREMENT TO
PROVIDE INFORMATION
PURSUANT TO THE MINNESOTA
ENVIRONMENTAL RESPONSE
AND LIABILITY ACT

The Minnesota Pollution Control Agency (MPCA) staff has reason to believe that the city of St. Paul Department of Public Works is a responsible person under the Minnesota Environmental Response and Liability Act (MERLA) and may have information that is relevant to the release or threatened release of hazardous substances or pollutants or contaminants from the above-referenced site. You are required by Minn. Stat. § 115B.17, subd. 3 (1988), to provide information to the MPCA and its employees that is relevant to the release or threatened release:

Any person who the agency has reason to believe is responsible for a release or threatened release as provided in section 115B.03, or who is the owner of real property where the release or threatened release is located or where response actions are proposed to be taken, when requested by the agency, or any member, employee or agent thereof who is authorized by the agency, shall furnish the agency any information which that person may have or may reasonably obtain which is relevant to the release or threatened release.

The MPCA is also authorized by Minn. Stat. § 115B.17, subd. 4(a)(1988), to examine and copy any books, papers, records, memoranda or data of any person who has a duty to provide information under Section 115B.17, subd. 3.

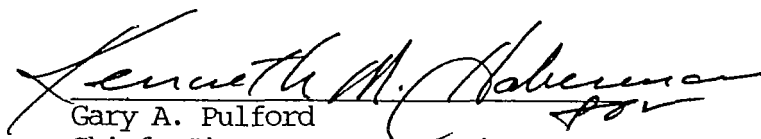
In addition, the MPCA is authorized to conduct investigations in conjunction with its duties to enforce the State's laws on water and air pollution. Minnesota Statutes, Section 115.03, subd. 1(h)(1988), Section 116.07, subd. 9(c)(1988).

You are hereby directed to answer the attached questionnaire and to provide any relevant documents within ninety (90) days from the date of this Requirement to Provide Information. Failure to respond or to provide complete and accurate answers to the enclosed questions may result in legal action by the State of Minnesota to compel disclosure.

Date:

8/10/90

MINNESOTA POLLUTION CONTROL AGENCY



Gary A. Pulford
Chief, Site Response Section
Ground Water and Solid Waste Division

QUESTIONNAIRE FOR PIG'S EYE DUMP/FISH HATCHERIES DUMP
AND
REQUEST FOR PRODUCTION OF DOCUMENTS

1. Identify the full legal name, address and phone number of the business or governmental entity, hereinafter referred to as "business."
2. How many years has the business been in operation?
3. Identify the names and current addresses and telephone numbers of all current and past owner(s) of the business.
4. Provide a map indicating that portion of the site(s) owned or operated by the business. Include leases.
5. Identify all MPCA, Minnesota Department of Health and other environmental permits issued by Federal, State, county, city or other governmental authorities that the business holds and the effective dates for such permits.
6. Identify and list all businesses and industrial customers whose garbage and/or hazardous wastes or pollutants or contaminants were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
7. Identify and list all transporters of garbage and/or hazardous wastes or pollutants or contaminants that were placed at the site(s). Include waste characterization, volume, dates, and current business contacts (if known).
8. Provide a map indicating the portions of the site(s) dedicated to specific uses or specific businesses.
9. How was the garbage and/or hazardous wastes or pollutants or contaminants picked up from businesses or industrial customers stored (e.g., in drums, barrels, dumpsters) for pick up? For transport?
10. How was the garbage and/or hazardous wastes or pollutants or contaminants disposed of (e.g., drums buried or emptied and returned) at the site(s)?
11. Identify all persons whom the business consulted in the preparation of the response to the Questionnaire, including their current addresses and telephone numbers and relationship to the business.
12. Identify any other persons who may be able to provide a more detailed or complete response to the Questionnaire or who may be able to provide additional relevant documents.

Attachment 1
Instructions for Questionnaire

1. ENCLOSE WITH YOUR RESPONSE TO THE QUESTIONNAIRE A NOTARIZED AFFIDAVIT FROM YOU OR AN AUTHORIZED OFFICIAL REPRESENTING YOUR BUSINESS ATTESTING TO THE FACT (A) THAT A DILIGENT SEARCH FOR RECORDS RELEVANT TO THIS QUESTIONNAIRE HAS BEEN COMPLETED AND (B) THAT A DILIGENT INTERVIEW PROCESS HAS BEEN CONDUCTED WITH PRESENT AND FORMER EMPLOYEES WHO MAY HAVE KNOWLEDGE OF WASTE GENERATION OR OTHER WASTE MANAGEMENT PRACTICES AT PIG'S EYE DUMP/FISH HATCHERIES DUMP FROM 1956 TO 1972. ANY INFORMATION THAT YOU PROVIDE IN RESPONSE TO THE QUESTIONNAIRE THAT IS BASED ON YOUR PERSONAL KNOWLEDGE, OR THE PERSONAL KNOWLEDGE OF YOUR EMPLOYEES, AGENTS, OR OTHER REPRESENTATIVES MUST BE SUBMITTED IN THE FORM OF A NOTARIZED AFFIDAVIT.
2. Review the list of definitions in Attachment 2.
3. Make a separate written response to each question. Do NOT leave any blank questions.
4. Number each of your answers according to the corresponding numbered question. For each document produced in response to the Requirement to Provide Information, identify the number of the question to which it responds on the document or in some other reasonable manner.
5. In answering each question, identify all sources of information consulted in preparing the response.
6. You are required to respond to each question on the basis of any and all information and documents in your possession, custody, or control or the possession, custody, or control of your current or former employees, agents, or contractors, or other person who conducted business on your behalf. Furnish information that is available to you regardless of whether it is based on personal knowledge, and regardless of source.
7. Information necessary to adequately respond to a question may not be known or available on the date your response is submitted. If this is the case, you have a continuing duty to provide the information when it becomes known or available, and to submit correct information that was submitted in the response and later learned to be wrong.
8. Respond in writing to each question even if information on which your answer is based has not been recorded in any particular document.
9. If any requested documents have been transferred voluntarily or involuntarily to others or have been otherwise disposed of, identify (a) each document; (b) the person to whom it was transferred; and (c) the date of the transfer or disposal.
10. You have a duty to provide the requested information even if the information may be considered confidential or a trade secret. If you provide any information that relates to sales figures, processes or methods of production unique to your business, or information that would tend to affect adversely the competitive position of your business if generally known, you may certify this claim at the time you submit your response and the

-2-

information so certified will be held nonpublic as provided in Minnesota Statutes, Section 115B.17, subdivision 5 (1988). Any such certification must specifically identify the information that you believe qualifies for nonpublic treatment. If no such certification accompanies the information when it is received by the MPCA, it may be made available to the public by the MPCA without further notice to you.

Attachment 2
Definitions for Questionnaire

For the purpose of your answers to the Questionnaire, the following definitions shall apply:

1. CITY OF ST. PAUL. "City of St. Paul" includes any agent, subcontractor, or any other person who conducted or did business on behalf of "City of St. Paul."

2. Pig's Eye Dump/Fish Hatcheries Dump. "Pig's Eye Dump/Fish Hatcheries Dump" means the property located 1/2 mile southeast of the intersection of Warner Road and Childs Road (an old report lists the address as 1150 Pig's Eye Lake Road) [Ramsey County, Section 10, T28N, R22W] and the property located at the intersection of Warner Road and Childs Road (an old report simply gives the address as Warner Road) [Ramsey County, Section 3, T28N, R22W], St. Paul, Minnesota.

3. YOU; BUSINESS. The terms "you" and "business," means the addressee of the Requirement to Provide Information.

4. DOCUMENT. "Document" means information preserved in any manner which is in the possession of or may be reasonably obtained by the addressee, including information in the possession of the addressee's directors, officers, shareholders, partners, managers, employees, subcontractors, trustees, successors, assigns, and agents, regardless of the location of the document or its classification as privileged or confidential. The term "document" includes but is not limited to the following: correspondence, contracts, agreements, memoranda, telegrams, reports, assignments, personnel records, record books, manifests, logs, scrap-books, diaries, minutes, plans, drawings, photographs, tapes, computer discs, invoices, checks, surveys and analyses.

5. IDENTIFY/Individual. The term "identify" means, with respect to an "individual," to set forth the person's full name, present or last known

address, name of the employer, and a description of the job responsibilities of the person.

6. IDENTIFY/Business. The term "identify" means, with respect to a governmental entity, corporation, sole proprietorship, partnership, or other association or business entity, to set forth its full name, address, legal form (for example, corporation, partnership, etc.), and a brief description of the product or service offered by the business.

7. IDENTIFY/Document. The term "identify" means, with respect to a document to provide its customary business description, its date, its number if any (for example, invoice or purchase order number) as well as its author, addresser, addressee and/or recipient, and the substance or the subject matter.

8. PERSON. "Person," as defined in Minnesota Statutes, Section 115B.02, subdivision 12 (1988) means any individual, partnership, association, public or private corporation or other entity, including the United States government, any interstate body, the state and any agency, department or political subdivision of the state.

9. FACILITY. "Facility," as defined in Minnesota Statutes, Section 115b.02, subdivision 5 (1988) means:

(a) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft;

(b) Any watercraft of any description, or other artificial contrivance used or capable of being used as a means of transportation on water; or

-3-

(c) Any site or area where a hazardous substance, or a pollutant or contaminant, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Facility" does not include any consumer product in consumer use.

10. HAZARDOUS SUBSTANCE. "Hazardous substance," as defined in Minnesota Statutes, Section 115B.02, subd. 8 (1988), means:

(a) Any commercial chemical designated pursuant to the Federal Water Pollution Control Act, under United States Code, title 33, section 1321 (b) (2) (A);

(b) Any hazardous air pollutant listed pursuant to the Clean Air Act, under United States Code, title 42, section 7412, and

(c) Any hazardous waste.

"Hazardous substance" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas, nor does it include petroleum, including crude oil or any fraction thereof which is not otherwise a hazardous waste.

11. HAZARDOUS WASTE. "hazardous waste," as defined in Minnesota Statutes, Section 115B.02, subdivision 9 (1988) means:

(a) Any hazardous waste as defined in section 116.06, subd. 13, and any substance identified as a hazardous waste pursuant to rules adopted by the agency under section 116.07; and

(b) Any hazardous waste as defined in the Resource Conservation and Recovery Act, under United States Code, title 42, section 6903, which is listed or has the characteristics identified under United States Code, title 42,

-4-

section 6921, not including any hazardous waste, the regulation of which has been suspended by Act of Congress.

12. POLLUTANT OR CONTAMINANT. "Pollutant or contaminant," as defined in Minnesota Statutes, Section 115B.02, subdivision 13 (1988) means any element, substance, compound, mixture, or agent, other than a hazardous substance, which after release from a facility and upon exposure of, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in the organisms or their offspring.

"Pollutant or contaminant" does not include natural gas, natural gas liquids, liquefied natural gas, synthetic gas usable for fuel, or mixtures of such synthetic gas and natural gas.

13. SOLID WASTE. "Solid waste," as defined in Minnesota Rules, Part 7035.0300, subpart 100 (1988) means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semi-solid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste, water effluents or discharges which are point sources subject to permits under

-5-

section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

14. RELEASE. "Release," as defined in Minnesota Statutes, Section 115B.02, subdivision 15 (1988) means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

"Release" does not include:

(a) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(b) Release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in The Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal nuclear regulatory commission under United States Code, title 42, section 2210.

(c) Release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a) or 7942(a); or

(d) Any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18A.21, subd. 25.

DAVID R. WHITWAM
Chairman of the Board, President and
Chief Executive Officer
Whirlpool Corporation
Administrative Center
Benton Harbor, Michigan 49022
[Mrs. Mindy Eisen] 616/926-3150

VICTOR A. BONOMO
Whirlpool Corporation
c/o Mr. Daniel F. Hopp
2000 M-63
Benton Harbor, Michigan 49022
(616/926-3223)

ROBERT A. BURNETT
Chairman of the Board
Meredith Corporation
Locust at 17th
Des Moines, Iowa 50336
[Mrs. Donna Blaskovich]
[Miss Diane Dankenbring] 515/284-2521

DOUGLAS D. DANFORTH
Westinghouse Electric Corporation
Westinghouse Building
Gateway Center
Pittsburgh, Pennsylvania 15222
[Ms. Judy Jessep, Sec.] 412/642-3100

ALLAN D. GILMOUR
Ford Motor Company
The American Road
P.O. Box 1899
Dearborn, Michigan 48120
[Ms. Arlene Aramian, AA] 313/337-6640

MILES L. MARSH
Whitman Corporation
111 E. Wacker Drive
Chicago, Illinois 60601
[Ms. Sharon Haney, Sec.] 312/565-3031

JAMES R. SAMARTINI
Executive Vice President and
Chief Financial Officer
Whirlpool Corporation
Administrative Center
Benton Harbor, Michigan 49022
[Mrs. Cathy Champagne] 616/926-3179

PHILIP L. SMITH
Whirlpool Corporation
c/o Mr. Daniel F. Hopp
2000 M-63
Benton Harbor, Michigan 49022
(616/926-3223)

JACK D. SPARKS
Chairman, Retired.
Jack D. Sparks Administrative Center
701 Main Street
St. Joseph, Michigan 49085
[Mrs. Maria Melcher] 616/982-4602

PAUL G. STERN
Northern Telecom Limited
8614 Westwood Center Drive, Suite 1200
Vienna, VA 22182
[Ms. Karen Gallardy, EA] 703/847-7801

JANICE D. STONEY
President, Consumer Division
U S WEST Communications Group, Inc.
1801 California
Suite 5200
Denver, Colorado 80202
[Ms. Fran Unruh, Sec.] 303/965-1982

KENNETH J. WHALEN
Whirlpool Corporation
c/o Mr. Daniel F. Hopp
2000 M-63
Benton Harbor, Michigan 49022
(616/926-3223)

10/15/90

NOTE: All mailings to Directors are coordinated through the
Corporate Secretary's office (Daniel Hopp).

SITE NAME: PIG EYE LANDFILL

DCN: 01347

PAGES: 1

DATE: 11-12-90

SOURCE: _____

AUTHOR: GRACE KOH ANGELLO - JENNER & BLOCH

RECIPIENT: Cathy O'Connell MREA

TITLE: Letter re: CMCREC's response

SUMMARY: This document is a letter
which ~~ref~~ confirms a conversation
in which CMCREC was permitted
to respond to MREA's ~~request~~
request by 11-15-90.

PRP's CMCREC _____

TRANSPORTERS _____

CODED BY PP _____

ENTERED BY _____

Q A BY _____

LAW OFFICES

JENNER & BLOCK

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

ONE IBM PLAZA
CHICAGO, ILLINOIS 60611(312) 222-9350
(312) 527-0484 FAXWASHINGTON OFFICE
21 DUPONT CIRCLE, N.W.
WASHINGTON, D.C. 20036
(202) 223-4400
(202) 223-6058 FAXLAKE FOREST OFFICE
ONE WESTMINSTER PLACE
LAKE FOREST, IL 60045
(708) 295-9200
(708) 295-7810 FAXMIAMI OFFICE
ONE BISCAYNE TOWER
MIAMI, FL 33131
(305) 530-3535
(305) 530-0008 FAX

GRACE KOH ANGELOS

November 6, 1990

Ms. Cathy O'Connell
Project Manager
Site Response Section
Groundwater and Solid Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

NOV 09 90

MPCA, Ground Water
& Solid Waste Div.

Re: Requirement to Provide Information
Pig's Eye Dump/Fish Hatcheries Dump

Dear Ms. O'Connell:

Pursuant to our conversation of Tuesday,
November 6, 1990, this letter is to confirm our understanding
that CMC Real Estate Corporation will be permitted to respond
to the Minnesota Pollution Control Agency's Requirement to
Provide Information on or before November 15, 1990.

Thank you for your cooperation in this matter.

Very truly yours,

Grace Koh Angelos
Grace Koh Angelos

GKA011003.LET

cc: Charles Harrison
Raymond T. Reott
Rebecca L. Raftery